



CHR HANSEN

Improving food & health

Culture range for fermented milk

Broadest and best culture range in the world

YoFlex®

nu-trish®

eXact®

Chr. Hansen - Improving food and health

Chr. Hansen

- Global market leader in dairy ingredients
- Dedicated to the dairy industry for almost 140 years
- A company built on science - close partnerships with universities and research institutes

Helping you to meet consumer needs

- Global overview of the fermented milk market trends
- Bringing inspiration through development of new concepts
- Enabling development of healthy and tasty products

Broadest and best culture range in the world

- Giving unbeatable texture, flavor and appearance to your products
- Best documented probiotics
- Safe and easy to use

A partner you can trust

- Dedicated technical sales team with deep industry knowledge
- Local support through 19 Industry Technology Centers
- Second to none worldwide manufacturing and distribution capabilities



Information on Direct Vat Set / DVS

DESCRIPTION

DVS is a highly concentrated and standardized frozen or freeze-dried dairy culture, used for direct inoculation of milk. DVS cultures need no activation or other treatment prior to use.

APPEARANCE

Frozen DVS cultures are water-soluble pellets, approximately 5 mm in diameter, with an off-white to brownish color. The pellets have a slight peptone-like odor. Freeze-dried DVS cultures are water-soluble granules, 2-5 mm in diameter, with an off-white to slightly red or brown color. The granules have a slight peptone-like odor.

TECHNICAL DATA

Chr. Hansen's DVS cultures rely only on lactic acid bacteria internationally approved for the dairy industry. Our cultures are all of natural origin and are produced using the latest production technology. The number of viable cells in frozen DVS cultures is min 1×10^{10} cfu per gram. In freeze-dried DVS cultures the number is min 5×10^{10} cfu per gram.

PURITY

Chr. Hansen's DVS cultures comply with IDF 149A (International Dairy Federation) standards regarding maximum contaminant content.

STORAGE AND STABILITY

Frozen DVS cultures should be stored at -45°C (-49°F) or below. If frozen DVS cultures are stored correctly, the shelf life is at least 12 months. Freeze-dried DVS cultures should be stored at -18°C (0°F) or below. If freeze-dried cultures are stored correctly, the shelf life is at least 24 months. At $+5^{\circ}\text{C}$ (41°F) the shelf life is at least 6 weeks.

GUARANTEE

Chr. Hansen's dairy cultures are produced in strict conformity with the regulations of local health authorities.

TECHNICAL SERVICE

Chr. Hansen has internationally dispersed development centers, as well as application centers in all major dairy markets. For specific application advice and support, please contact your local Chr. Hansen representative.

The information contained herein is presented in good faith and is, to the best of our knowledge and belief, true and reliable. It is offered solely for your consideration, testing and evaluation, and is subject to change without prior and further notice unless otherwise required by law or agreed upon in writing. There is no warranty being extended as to its accuracy, completeness, currentness, non-infringement, merchantability or fitness for a particular purpose. To the best of our knowledge and belief, the product(s) mentioned herein do(es) not infringe the intellectual property rights of any third party. The product(s) may be covered by pending or issued patents, registered or unregistered trademarks, or similar intellectual property rights. Copyright © Chr. Hansen A/S. All rights reserved.



YoFlex®

The YoFlex® range is a series of thermophilic cultures specifically developed for yogurt and fermented milk.

The data listed below gives an indicative overview of the performance of each individual culture vs. the others in the range. Performance will be dependent on specific recipe and processing conditions.

| Standard Range | | | | | | | | | | | | | | | | | | |
|--------------------|----------------------------------|----|----|-------|-------|----------------------------------|-----------------|--------------------|--------------------|---------------|--------------|---------------|------------|------------------|-----------------|-----------------|------------|------------|
| Culture name | Culture composition ¹ | | | | | Culture Performance ² | | | | | Frozen DVS | | | Freeze-dried DVS | | | | |
| | ST | LB | LR | L.lac | L.fer | Gel firmness | Mouth thickness | Fermentation speed | Post acidification | Yogurt flavor | 500 g carton | 10x 500 U bag | Other size | 10x 50 U pouch | 25x 200 U pouch | 20x 500 U pouch | Other size | |
| YoFlex SoGreek S1 | ● | ● | | | | 5 | 4 | 4 | 1 | 1 | | 710738 | | | | | | |
| YoFlex SoGreek S2 | ● | ● | | | | 5 | 4 | 4 | 1 | 1 | | 710739 | | | | | | |
| YoFlex SoGreek F1 | ● | ● | | | | 4 | 3 | 4 | 2 | 3 | | 710740 | | | | | | |
| YoFlex SoGreek F2 | ● | ● | | | | 4 | 3 | 4 | 2 | 3 | | 710742 | | | | | | |
| YoFlex Creamy 1.0 | ● | ● | ● | | | 5 | 5 | 4 | 2 | 2 | | 706168 | | | | | | |
| YoFlex Creamy 2.0 | ● | ● | ● | | | 5 | 4 | 1 | 2 | 2 | | 705305 | | | | | | |
| YoFlex Premium 1.0 | ● | ● | | | | 5 | 5 | 3 | 2 | 2 | | 706161 | | | | | | |
| YoFlex Premium 2.0 | ● | ● | | | | 5 | 4 | 1 | 2 | 2 | | 705304 | | | | | | |
| YoFlex Mild 1.0 | ● | ● | | | | 5 | 4 | 4 | 1 | 1 | | | 702897 | 12x 500 U | 703027 | 703028 | | |
| YoFlex Mild 2.0 | ● | ● | | | | 4 | 4 | 3 | 1 | 2 | 682782 | 704984 | | | | | | |
| YoFlex Harmony 1.0 | ● | ● | | | ● | 4 | 4 | 2 | 1 | 1 | | 704952 | | 700122 | 700123 | 700125 | | |
| YoFlex Express 1.0 | ● | ● | | | | 3 | 3 | 5 | 2 | 3 | | 704953 | | | 698649 | | 697740 | 15x 1000 U |
| YoFlex Express 2.0 | ● | ● | | | | 3 | 3 | 5 | 2 | 3 | | | | | 707362 | | 707651 | 5x 1000 U |
| YoFlex Express 3.0 | ● | ● | | | | 3 | 3 | 5 | 2 | 3 | | | | | 707363 | | | |
| YoFlex Classic 1.0 | ● | ● | | | | 4 | 5 | 4 | 3 | 3 | | | 703006 | 12x 500 U | | | | |
| YoFlex Advance 2.0 | ● | ● | | | | 2 | 5 | 3 | 1 | 1 | 699755 | | | 700059 | 700065 | | | |
| YF-L904 | ● | ● | | | | 3 | 4 | 3 | 2 | 2 | | | | 697883 | 697884 | 693671 | | |
| YF-L903 | ● | ● | | | | 4 | 4 | 3 | 2 | 2 | | | | 697825 | 689562 | 690639 | | |
| YF-L902 | ● | ● | | | | 4 | 4 | 3 | 2 | 3 | 685143 | | | | | | | |
| YF-L901 | ● | ● | | | | 5 | 4 | 3 | 2 | 2 | 685142 | 704950 | | | | | | |
| YF-L812 | ● | ● | | | | 3 | 3 | 2 | 1 | 3 | 680110 | | | 667296 | 677350 | 677650 | | |
| YF-L811 | ● | ● | | | | 3 | 2 | 4 | 2 | 3 | | | | 667295 | 667330 | 667331 | | |
| YF-L706 | ● | ● | | | | 4 | 3 | 5 | 3 | 4 | 685141 | | | | | | | |
| YF-L705 | ● | ● | | | | 4 | 3 | 3 | 2 | 3 | 685135 | | | | | | | |
| YF-L703 | ● | ● | | | | 3 | 3 | 4 | 3 | 3 | | 704948 | | | | | | |
| YF-L702 | ● | ● | | | | 3 | 3 | 4 | 1 | 2 | | 704947 | | | | | | |
| YF-3331 | ● | ● | | | | 3 | 1 | 5 | 4 | 4 | 201199 | | | 663815 | | 701686 | | |
| YC-X11 | ● | ● | | | | 3 | 2 | 4 | 3 | 4 | | 704946 | | 600869 | 612772 | 600870 | | |
| YC-350 | ● | ● | | | | 2 | 1 | 4 | 5 | 5 | | | | 100251 | 100257 | 100262 | | |
| YC-180 | ● | ● | | ● | | 2 | 2 | 2 | 4 | 4 | | 704938 | | 100249 | 100255 | 100260 | | |
| CH-1 | ● | ● | | | | 1 | 1 | 4 | 5 | 5 | | 704936 | | 601094 | 601093 | | | |

1: ST: *Streptococcus thermophilus*, LB: *Lactobacillus bulgaricus*, LR: *Lactobacillus rhamnosus*, L.lac: *Lactobacillus lactis*, L.fer: *Lactobacillus fermentum*.

2: Performance scale: 1 = Very low/very slow, 2 = low/slow, 3 = medium, 4 = high/fast, 5 = very high/very fast.

nu-trish®

The nu-trish® range of cultures with world's best documented probiotics. Available as single strain probiotics and as optimal blends of yoghurt cultures and probiotics for perfect fermented milk products.

The data listed below gives an indicative overview of the performance of each individual culture vs. the others in the range. Performance will be dependent on specific recipe and processing conditions.

| Standard Range | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|----------------------------------|-------|---------------|--------|----|----|----|---------|-------------|----------------------------------|-----------------|--------------------|--------------------|---------------|-----------------|------------|-----------|------------------|-----------------|-----------------|---------------|----------------|--------|
| Culture Name | Culture composition ¹ | | | | | | | | | Culture Performance ² | | | | | Frozen DVS | | | Freeze-dried DVS | | | | | |
| | BB-12® | LA-5® | L. casei 431® | LC-01™ | ST | LB | LR | L and D | O or Pro-K™ | Gel firmness | Mouth thickness | Fermentation speed | Post acidification | Yogurt flavor | 10x 500 U/g bag | Other size | | 10x 50 U pouch | 20x 500 U pouch | 25x 200 U pouch | 20x 25g pouch | 10x 200g pouch | |
| nu-trish BB-12® | ● | | | | | | | | | | | | | | 704822 | 704833 | 16x 250 g | | | | | 706146 | |
| nu-trish LA-5® | | ● | | | | | | | | | | | | | 704830 | | | | | | | 706152 | |
| nu-trish L. casei 431® | | | ● | | | | | | | | | | | | 704824 | 712238 | 20x 250 g | | | | | 706147 | 703059 |
| nu-trish L. casei 01 | | | | ● | | | | | | | | | | | 704823 | 710114 | 20x 250 g | | | | | 706149 | 702481 |
| nu-trish A/B | ● | ● | | | | | | | | | | | | | 704826 | 704827 | 16x 200 g | | | | | | |
| nu-trish ABY-1 | ● | ● | | | ● | ● | | | | 3 | 1 | 5 | 4 | 3 | | | | 100135 | 100224 | 100194 | | | |
| nu-trish ABY-2 | ● | ● | | | ● | ● | | | | 2 | 1 | 3 | 4 | 3 | 704837 | | | | | 100195 | | | |
| nu-trish ABY-3 | ● | ● | | | ● | ● | | | | 3 | 2 | 4 | 2 | 3 | 704844 | | | 669852 | 666091 | 666092 | | | |
| nu-trish ABY-4 | ● | ● | | | ● | ● | | | | 3 | 2 | 4 | 3 | 2 | 704847 | | | | | | | | |
| nu-trish ABY-10 | ● | ● | | | ● | ● | | | | 4 | 3 | 5 | 3 | 3 | 704850 | | | | | 685530 | | | |
| nu-trish ABT-1 | ● | ● | | | ● | | | | | 5 | 2 | 1 | 3 | 2 | 704838 | | | 100130 | | 100188 | | | |
| nu-trish ABT-2 | ● | ● | | | ● | | | | | 4 | 2 | 1 | 3 | 2 | 704839 | | | 100131 | 100219 | 100189 | | | |
| nu-trish ABT-3 | ● | ● | | | ● | | | | | 4 | 1 | 4 | 4 | 2 | | | | 100132 | 100220 | | | | |
| nu-trish ABT-4 | ● | ● | | | ● | | | | | 4 | 1 | 4 | 4 | 2 | 704840 | | | 100133 | 100221 | 100191 | | | |
| nu-trish ABT-5 | ● | ● | | | ● | | | | | 4 | 2 | 3 | 3 | 3 | | | | 100134 | 100223 | 100193 | | | |
| nu-trish ABT-6 | ● | ● | | | ● | | | | | 5 | 2 | 3 | 3 | 2 | 704842 | | | | | | | | |
| nu-trish ABT-7 | ● | ● | | | ● | | | | | 4 | 2 | 4 | 1 | 2 | | | | 681952 | 666089 | 666088 | | | |
| nu-trish ABT-10 | ● | ● | | | ● | | | | | 3 | 3 | 5 | 3 | 3 | 704851 | | | | 685163 | 685546 | | | |
| nu-trish ABT-21 | ● | ● | | | ● | | | | | 4 | 2 | 3 | 4 | 2 | 704841 | | | | | | | | |
| nu-trish BCT-1 | ● | | | ● | ● | | | | | 3 | 2 | 2 | 3 | 2 | 704834 | | | | | | | | |
| nu-trish BY-700 | ● | | | | ● | ● | | | | 5 | 2 | 4 | 2 | 2 | 704845 | | | | | | | | |
| nu-trish BMY-01 | ● | | | | ● | ● | | ● | | 3 | 3 | 5 | 2 | 3 | 704852 | | | | | | | | |
| nu-trish BMY-02 | ● | | | | ● | ● | | ● | | 5 | 3 | 3 | 2 | 2 | 704853 | | | | | | | | |
| nu-trish BY-Mild | ● | | | | ● | ● | | | | 4 | 4 | 4 | 1 | 3 | | 703016 | 8x 500 U | | | | | | |
| nu-trish BY-Premium | ● | | | | ● | ● | | | | 4 | 5 | 4 | 1 | 3 | | 706167 | 7x 500 U | | | | | | |
| nu-trish ABY-Premium | ● | ● | | | ● | ● | | | | 4 | 5 | 4 | 1 | 3 | | 706165 | 7x 500 U | | | | | | |
| nu-trish BRV-Creamy | ● | | | | ● | ● | ● | | | 5 | 5 | 3 | 1 | 3 | | 706170 | 7x 500 U | | | | | | |
| nu-trish BY-Balance | ● | | | | ● | ● | | | | 5 | 4 | 4 | 1 | 3 | | 703093 | 8x 500 U | | | | | | |
| nu-trish Pro-K D1 | | | | | ● | | ● | ● | | 1 | 2 | 2 | 2 | N/A | 709858 | | | | | | | | |
| nu-trish Pro-K Q1 | | | | | | | | ● | | 2 | 2 | 2 | 2 | N/A | 709859 | | | | | | | | |
| BY SoGreek F1 | ● | | | | ● | ● | | | | 4 | 3 | 4 | 2 | 3 | 711018 | | | | | | | | |
| BY SoGreek S1 | ● | | | | ● | ● | | | | 5 | 4 | 4 | 1 | 1 | 711017 | | | | | | | | |

1: BB-12®: *Bifidobacterium* BB-12®, LA-5®: *Lactobacillus acidophilus* LA-5®, L. casei 431®: *Lactobacillus paracasei* subsp. *paracasei* L. casei-431®, LC-01™: *Lactobacillus paracasei* LC-01™, ST: *Streptococcus thermophilus*, LB: *Lactobacillus bulgaricus*, LR: *Lactobacillus rhamnosus*, L: *Leuconostoc*, D: *L. lactis* subsp. *lactis* biovar. *diacetylactis*, O: *L. lactis* subsp. *lactis*, Pro-K™: *L. lactis* subsp. *cremoris* Pro-K™.

2: Performance scale: 1 = Very low/very slow, 2 = low/slow, 3 = medium, 4 = high/fast, 5 = very high/very fast.

eXact®

The eXact® range is a series of mesophilic cultures specifically developed for cultured milk, cultured cream and fresh cheese.

The performance data listed below are obtained at optimal conditions for each individual culture and are subject significant variation depending on specific recipe and processing conditions.

| Standard Range | | | | | | | | | | | | | | | | | | | |
|----------------|----------------------------------|---|---|----|--------|-------|----------------------------------|---------|--------------------|--------|-----|--------------|---------------|------------|------------------|-----------------|-----------------|------------|-----------|
| Culture Name | Culture composition ¹ | | | | | | Culture Performance ² | | | | | Frozen DVS | | | Freeze-dried DVS | | | | |
| | O | L | D | ST | Bifido | Yeast | Fermentation speed | Texture | Post acidification | Flavor | Gas | 500 g carton | 10x 500 U bag | Other size | 10x 50 U pouch | 25x 200 U pouch | 20x 500 U pouch | Other size | |
| CH-BAN-1 | ● | ● | ● | | ● | | 1 | 2 | 2 | 4 | 4 | | 704760 | | | | | | |
| CHN-13 | ● | ● | ● | | | | 1 | 2 | 2 | 4 | 4 | 200117 | | | | | | | |
| CHN-22 | ● | ● | ● | | | | 1 | 2 | 2 | 5 | 4 | | 704759 | | 100101 | 100128 | 100162 | | |
| eXact® Fit 1 | ● | ● | ● | | | | 2 | 1 | 2 | 4 | 4 | | 706360 | | | | | | |
| eXact® Fit 2 | ● | ● | ● | | | | 2 | 1 | 2 | 4 | 4 | | 706361 | | | | | | |
| eXact® Fit 3 | ● | ● | ● | | | | 2 | 1 | 2 | 4 | 4 | | 708959 | | | | | | |
| XPL-1 | ● | ● | ● | ● | | | 5 | 5 | 2 | 4 | 4 | | 704770 | | 675876 | 677787 | 677788 | | |
| XPL-2 | ● | ● | ● | ● | | | 4 | 5 | 2 | 4 | 4 | | 704771 | | 694995 | 694996 | | | |
| XPL-20 | ● | | | ● | | | 5 | 5 | 3 | 2 | 1 | | | | | 686214 | 688985 | | |
| XPL-30 | ● | | | ● | | | 5 | 5 | 3 | 1 | 1 | | 705345 | | 709262 | 707763 | | | |
| XPL-40 | ● | | | ● | | | 5 | 5 | 3 | 2 | 1 | | | | | 709680 | | | |
| XT-207 | ● | | ● | | | | 4 | 3 | 3 | 3 | 2 | 616264 | | | | | | | |
| XT-208 | ● | | ● | | | | 4 | 3 | 3 | 3 | 2 | 689575 | | | | | | | |
| XT-302 | ● | ● | ● | | | | 3 | 2 | 2 | 4 | 3 | | 704763 | | | | | | |
| XT-303 | ● | ● | ● | | | | 3 | 2 | 2 | 4 | 3 | | 704767 | | | | | | |
| XT-304 | ● | ● | ● | | | | 3 | 3 | 2 | 4 | 3 | | 704772 | | | | | | |
| XT-312 | ● | ● | ● | | | | 2 | 4 | 2 | 4 | 3 | | 704765 | | | | | | |
| XT-313 | ● | ● | ● | | | | 2 | 4 | 2 | 4 | 3 | | 704768 | | | | | | |
| XT-314 | ● | ● | ● | | | | 2 | 4 | 2 | 4 | 3 | | 704769 | | | | | | |
| XTQ-1 | ● | ● | ● | | | | 4 | 4 | 2 | 5 | 2 | | | 698740 | 1x 500 U | | | | |
| XTQ-2 | ● | ● | ● | | | | 4 | 4 | 2 | 5 | 2 | | | 699196 | 1x 500 U | | | | |
| XTT-601 | ● | ● | ● | | | | 3 | 1 | 2 | 4 | 5 | | | 697357 | 12x 500 U | | | | |
| XTT-602 | ● | ● | ● | | | | 3 | 1 | 2 | 4 | 5 | | | 697358 | 12x 500 U | | | | |
| XTT-603 | ● | ● | ● | | | | 3 | 1 | 2 | 4 | 5 | | | 697354 | 12x 500 U | | | | |
| eXact® KEFIR 1 | ● | ● | ● | ● | | ● | 4 | 5 | 2 | 4 | 4 | | | | | | | 710294 | 15x 100 U |
| eXact® KEFIR 2 | ● | ● | ● | ● | | ● | 4 | 5 | 2 | 4 | 4 | | | | | | | 710295 | 15x 100 U |
| XMT-1 | ● | ● | ● | ● | | | 4 | 2 | 3 | 4 | 5 | | | | | | | 698306 | 25x 250 U |
| XMT-2 | ● | ● | ● | ● | | | 4 | 2 | 3 | 4 | 5 | | | | | | | 698305 | 25x 250 U |
| XMT-3 | ● | ● | ● | ● | | | 4 | 2 | 3 | 4 | 5 | | | | | | | 698303 | 25x 250 U |
| MO-1 | ● | | | | | | 5 | 2 | 2 | 1 | 1 | 200103 | | | | | | | |
| MO-2 | ● | | | | | | 5 | 2 | 2 | 1 | 1 | 703263 | | | | | | | |
| MO-3 | ● | | | | | | 5 | 2 | 2 | 1 | 1 | 670823 | | | | | | | |
| MO-4 | ● | | | | | | 5 | 2 | 2 | 1 | 1 | | 710397 | | | | | | |
| eXact® CC1 | ● | ● | ● | | | | 4 | 3 | 2 | 4 | 2 | | | 711605 | 1x 500 U | | | | |
| eXact® XO-1 | ● | ● | ● | | | | 5 | 2 | 2 | 2 | 2 | | | | | 711934 | | | |
| eXact® T-1 | ● | ● | ● | | | | 2 | 1 | 1 | 5 | 4 | | 709767 | | | | | | |

1: O: *L. lactis* subsp. *lactis/cremoris* L: *Leuconostoc*, D: *L. lactis* subsp. *lactis* biovar. *diacetylactis*, ST: *S. thermophilus*, Bifido: Bifidobacterium BB-12®, Yeast: *Debaryomyces hansenii*.

2: Performance scale: 1 = Very low/very slow, 2 = low/slow, 3 = medium, 4 = high/fast, 5 = very high/very fast.



FreshQ®

Nature's own protection

- Natural microorganisms inhibiting contaminants like yeasts and molds
- An additional hurdle to help manage your end product quality
- A natural alternative to chemical preservatives

Find the perfect match to protect your
business - www.chr-hansen.com/FreshQ



www.chr-hansen.com