

## ARG82407 Human B4GALT1 ELISA Kit

Package: 96 wells  
Store at: 4°C

### Component

| Cat. No.     | Component Name                        | Package              | Temp  |
|--------------|---------------------------------------|----------------------|---|
| ARG82407-001 | Antibody-coated microplate            | 8 X 12 strips        | 4°C. Unused strips should be sealed tightly in the air-tight pouch. |
| ARG82407-002 | Standard                              | 2 X 50 ng/vial       | 4°C   |
| ARG82407-003 | Standard/Sample diluent               | 30 ml (Ready to use) | 4°C   |
| ARG82407-004 | Antibody conjugate concentrate (100X) | 1 vial (100 µl)      | 4°C   |
| ARG82407-005 | Antibody diluent buffer               | 12 ml (Ready to use) | 4°C   |
| ARG82407-006 | HRP-Streptavidin concentrate (100X)   | 1 vial (100 µl)      | 4°C   |
| ARG82407-007 | HRP-Streptavidin diluent buffer       | 12 ml (Ready to use) | 4°C   |
| ARG82407-008 | 25X Wash buffer                       | 20 ml                | 4°C   |
| ARG82407-009 | TMB substrate                         | 10 ml (Ready to use) | 4°C (Protect from light)  |
| ARG82407-010 | STOP solution                         | 10 ml (Ready to use) | 4°C   |
| ARG82407-011 | Plate sealer                          | 4 strips             | Room temperature  |

### Summary

|                     |   |
|---------------------|---|
| Product Description | ARG82407 Human B4GALT1 ELISA Kit is an Enzyme Immunoassay kit for the quantification of Human B4GALT1 in serum, plasma (EDTA, heparin) and cell culture supernatants. |
| Tested Reactivity   | Hu  |
| Tested Application  | ELISA   |
| Target Name         | B4GALT1   |
| Conjugation         | HRP   |
| Conjugation Note    | Substrate: TMB and read at 450 nm.  |
| Sensitivity         | 0.39 ng/ml  |
| Sample Type         | Serum, plasma (EDTA, heparin) and cell culture supernatants.  |
| Standard Range      | 0.78 - 50 ng/ml   |
| Sample Volume       | 100 µl  |
| Precision           | Intra-Assay CV: 5.5%<br>Inter-Assay CV: 6.2%  |

|                 |  |
|-----------------|--|
| Alternate Names | beta4Gal-T1; GTB; EC 2.4.1.38; Beta-1,4-GalTase 1; Beta4Gal-T1; Nal synthase; EC 2.4.1.22; Beta-1,4-galactosyltransferase 1; EC 2.4.1.-; B4GAL-T1; EC 2.4.1.90; GT1; b4Gal-T1; CDG2D; UDP-Gal:beta-GlcNAc beta-1,4-galactosyltransferase 1; GGTB2; UDP-galactose:beta-N-acetylglucosamine beta-1,4-galactosyltransferase 1 |
|-----------------|--|

## Application Instructions

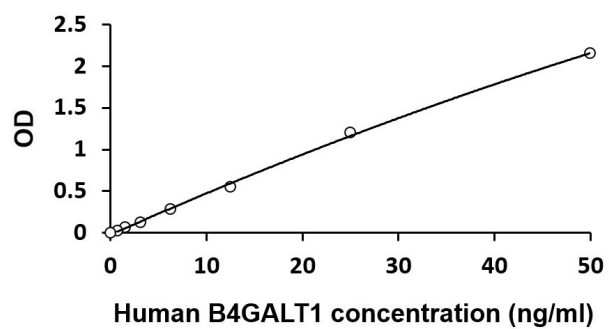
|            |           |
|------------|-----------|
| Assay Time | ~ 5 hours |
|------------|-----------|

## Properties

|                     |  |
|---------------------|--|
| Form                | 96 well  |
| Storage instruction | Store the kit at 2-8°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components. |
| Note                | For laboratory research only, not for drug, diagnostic or other use.   |

## Bioinformation

|                       |  |
|-----------------------|--|
| Gene Symbol           | B4GALT1  |
| Gene Full Name        | UDP-Gal:betaGlcNAc beta 1,4- galactosyltransferase, polypeptide 1  |
| Background            | <p>This gene is one of seven beta-1,4-galactosyltransferase (beta4GalT) genes. They encode type II membrane-bound glycoproteins that appear to have exclusive specificity for the donor substrate UDP-galactose; all transfer galactose in a beta1,4 linkage to similar acceptor sugars: GlcNAc, Glc, and Xyl. Each beta4GalT has a distinct function in the biosynthesis of different glycoconjugates and saccharide structures. As type II membrane proteins, they have an N-terminal hydrophobic signal sequence that directs the protein to the Golgi apparatus and which then remains uncleaved to function as a transmembrane anchor. By sequence similarity, the beta4GalTs form four groups: beta4GalT1 and beta4GalT2, beta4GalT3 and beta4GalT4, beta4GalT5 and beta4GalT6, and beta4GalT7. This gene is unique among the beta4GalT genes because it encodes an enzyme that participates both in glycoconjugate and lactose biosynthesis. For the first activity, the enzyme adds galactose to N-acetylglucosamine residues that are either monosaccharides or the nonreducing ends of glycoprotein carbohydrate chains. The second activity is restricted to lactating mammary tissues where the enzyme forms a heterodimer with alpha-lactalbumin to catalyze UDP-galactose + D-glucose UDP + lactose. The two enzymatic forms result from alternate transcription initiation sites and post-translational processing. Two transcripts, which differ only at the 5' end, with approximate lengths of 4.1 kb and 3.9 kb encode the same protein. The longer transcript encodes the type II membrane-bound, trans-Golgi resident protein involved in glycoconjugate biosynthesis. The shorter transcript encodes a protein which is cleaved to form the soluble lactose synthase. [provided by RefSeq, Jul 2008]</p> |
| Function              | <p>The Golgi complex form catalyzes the production of lactose in the lactating mammary gland and could also be responsible for the synthesis of complex-type N-linked oligosaccharides in many glycoproteins as well as the carbohydrate moieties of glycolipids.</p> <p>The cell surface form functions as a recognition molecule during a variety of cell to cell and cell to matrix interactions, as those occurring during development and egg fertilization, by binding to specific oligosaccharide ligands on opposing cells or in the extracellular matrix. [UniProt]</p>   |
| Highlight             | <p>Related products:<br/><a href="#">B4GALT1 antibodies</a>; <a href="#">B4GALT1 ELISA Kits</a>;<br/>New ELISA data calculation tool:<br/><a href="#">Simplify the ELISA analysis by GainData</a></p>  |
| PTM                   | The soluble form derives from the membrane forms by proteolytic processing. [UniProt]  |
| Cellular Localization | Isoform Long: Golgi apparatus, Golgi stack membrane; Single-pass type II membrane protein. Cell membrane; Single-pass type II membrane protein. Cell surface. Cell projection, filopodium. Isoform Short: Golgi apparatus, Golgi stack membrane; Single-pass type II membrane protein. [UniProt]   |



ARG82407 Human B4GALT1 ELISA Kit standard curve image

ARG82407 Human B4GALT1 ELISA Kit results of a typical standard run with optical density reading at 450 nm.