

DESCRIPTION

Source	Chinese Hamster Ovary cell line, CHO-derived human LILRA5/CD85f protein Gly42-Arg268, with a C-terminal 6-His tag Accession # A6NI73
N-terminal Sequence Analysis	Gly42
Predicted Molecular Mass	26 kDa

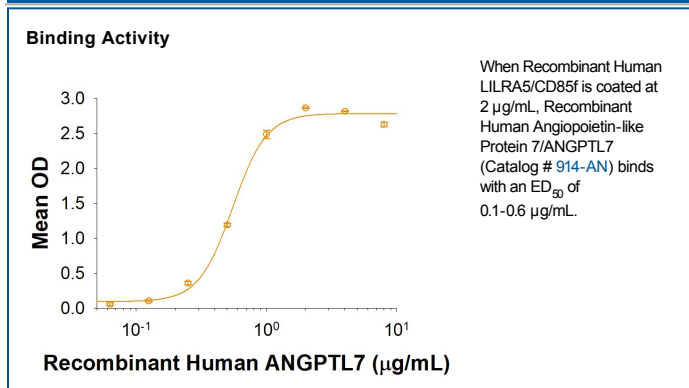
SPECIFICATIONS

SDS-PAGE	35-50 kDa, reducing conditions
Activity	Measured by its binding ability in a functional ELISA. When Recombinant Human LILRA5/CD85f is coated at 2 µg/mL, Recombinant Human Angiotensin-like Protein 7/ANGPTL7 (Catalog # 914-AN) binds with a typical ED ₅₀ of 0.1-0.6 µg/mL.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 100 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 3 months, -20 to -70 °C under sterile conditions after reconstitution.

DATA



BACKGROUND

The leukocyte immunoglobulin-like receptors (LILR) comprise a family of activating and inhibitory type immunoreceptors whose genes are located in the same locus that encodes killer cell Ig-like receptors (KIRs) (1). Human LILRA5, also known as ILT11, LIR-9, and CD85f, consists of a 227 amino acid (aa) extracellular domain (ECD), a 21 aa transmembrane segment, and a 10 aa cytoplasmic tail (2). The ECD contains two Ig-like domains (3), and the transmembrane segment contains a positively charged aspartic acid residue which may mediate its association with the signaling molecule, FcR common gamma chain (4). Alternative splicing generates additional isoforms with a 12 aa deletion within the signal peptide and/or a 27 aa substitution for the C-terminal 61 residues. This substitution encompasses both the transmembrane and cytoplasmic regions. LILRA5 is expressed by monocytes, macrophages, and neutrophils (2, 4). It is found as an approximately 40 kDa molecule on the cell surface, while a soluble 25 kDa form can be released into the synovial fluid of rheumatoid arthritis patients (2, 4). Cross-linking of LILRA5 on monocytes induces the expression of pro-inflammatory cytokines (IL-1 beta, IL-6, TNF-alpha) as well as the anti-inflammatory IL-10 (2, 4). R&D Systems in-house testing indicates that LILRA5 binds to Angiotensin-like 7, consistent with the demonstrated functional interactions between other members of these protein families (5).

References:

1. Thomas, R. *et al.* (2010) Clin. Rev. Allergy Immunol. **38**:159.
2. Borges, L. *et al.* (2003) Blood **101**:1484.
3. Shiroishi, M. *et al.* (2006) J. Biol. Chem. **281**:19536.
4. Mitchell, A. *et al.* (2008) Eur. J. Immunol. **38**:3459.
5. Zheng, J. *et al.* (2012) Nature **485**:656.