

DESCRIPTION

Source	Mouse myeloma cell line, NS0-derived Gln17-Asn248, with a C-terminal 6-His tag Accession # NP_001070261
N-terminal Sequence Analysis	No results obtained. Gln17 inferred from enzymatic pyroglutamate treatment revealing Glu18
Predicted Molecular Mass	27 kDa

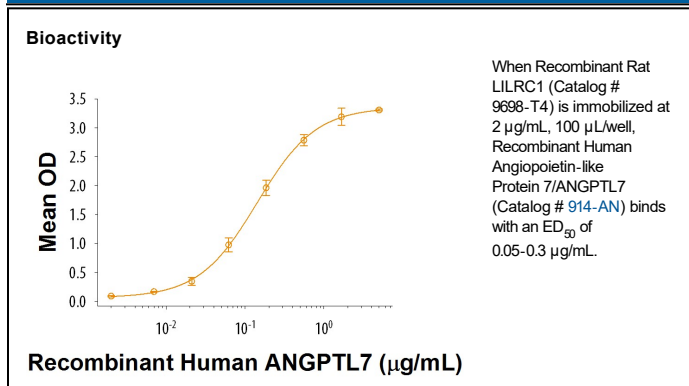
SPECIFICATIONS

SDS-PAGE	34-41 kDa, reducing conditions
Activity	Measured by its binding ability in a functional ELISA. When Recombinant Rat LILRC1 is immobilized at 2 µg/mL, 100 µL/well, Recombinant Human Angiotensin-like Protein 7/ANGPTL7 (Catalog # 914-AN) binds with an ED ₅₀ of 0.05-0.3 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 250 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). LILRC1 (leukocyte immunoglobulin-like receptor C1), also known as LILRA5, ILT11, LIR-9, and CD85f, consists of an extracellular domain (ECD), a transmembrane segment, and a cytoplasmic tail (2, 3). The ECD contains two Ig-like domains (4), and the transmembrane segment contains a positively charged arginine residue which may mediate its association with the signaling molecule, FcR common gamma chain (3, 5). Within the ECD, rat LILRC1 shares 58% and 85% amino acid sequence identity with human and mouse LILRA5, respectively. LILRC1 is expressed by monocytes, macrophages, and neutrophils (2, 3, 5). 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, 5). Cross-linking of LILRC1 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, 5). R&D Systems in-house testing indicates that LILRC1/LILRA5 binds to Angiotensin-like 7, consistent with the demonstrated functional interactions between other members of these protein families (6).

References:

1. Thomas, R. *et al.* (2010) Clin. Rev. Allergy Immunol. **38**:159.
2. Borges, L. *et al.* (2003) Blood **101**:1484.
3. Hoelsbrekken, S.E. *et al.* (2005) Immunogenetics **57**:479.
4. Shiroishi, M. *et al.* (2006) J. Biol. Chem. **281**:19536.
5. Mitchell, A. *et al.* (2008) Eur. J. Immunol. **38**:3459.
6. Zheng, J. *et al.* (2012) Nature **485**:656.