

DESCRIPTION

Source	Human embryonic kidney cell, HEK293-derived human LILRB5/CD85c/LIR-8 protein		
	Human LILRB5/CD85c/LIR-8 (Gly24-Gly458) Accession # O75023.1	IEGRMD	Human IgG ₁ (Pro100-Lys330)
	N-terminus		C-terminus
N-terminal Sequence Analysis	Gly24		
Structure / Form	Disulfide-linked homodimer		
Predicted Molecular Mass	74 kDa		

SPECIFICATIONS

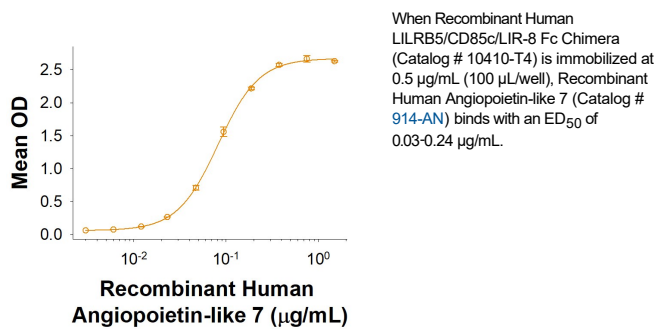
SDS-PAGE	85-105 kDa, under reducing conditions
Activity	Measured by its binding ability in a functional ELISA. When Recombinant Human LILRB5/CD85c/LIR-8 Fc Chimera (Catalog # 10410-T4) is immobilized at 0.5 µg/mL (100 µL/well), Recombinant Human Angiotensin-like Protein 7/ANGPTL7 (Catalog # 914-AN) binds with an ED ₅₀ of 0.03-0.24 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

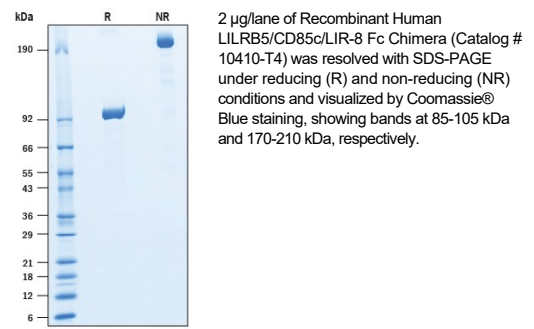
Reconstitution	Reconstitute at 500 µg/mL in PBS.
Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> • 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

Binding Activity



SDS-PAGE



BACKGROUND

LIR8, also known as CD85c and LILRB5, belongs to the Leukocyte immunoglobulin-like receptors (LILR) family of transmembrane glycoproteins involved in regulating immune responses (1,2). There are at least thirteen LILR family members and are divided into activating (LILRA) or inhibiting (LILRB) molecules (1,2). Mature human LIR8 consists of an extracellular domain (ECD) with four Ig-like domains, a transmembrane segment, and a cytoplasmic domain with two immunoreceptor tyrosine-based inhibitory motifs (ITIM). Alternative splicing of human LIR8 generates at least 2 isoforms, one lacking the second Ig-like domain. The LILR family appears to be primate-specific receptors in terms of sequence homology. LIR8 is expressed on NK cells and in the tryptic granules of mast cells and negatively regulates immune cell activation (3, 4). It is present on the mast cell surface following cell activation and degranulation (4). Activated mast cells may also release soluble forms of LIR8 (3). LIR8 has also been shown to be expressed on T cells and induce CD8+ T cell proliferation (5). Consistent with the demonstrated binding of LILRB2 to Angiopoietin-like 2 and 5 (6), R&D Systems in-house testing indicates that LIR8 binds to Angiopoietin-like 7. Recently, a common missense variant of LIR8 was found to be associated with statin intolerance and myalgia (7).

References:

1. Brown, D. *et al.* (2004) *Tissue antigens*. **64**:215.
2. Thomas, R. *et al.* (2010) *Clin. Rev. Allergy Immunol.* **38**:159.
3. Borges, L. *et al.* (1997) *J. Immunol.* **159**:5192.
4. Tedla, N. *et al.* (2008) *J. Leukoc. Biol.* **83**:334.
5. Hogan, H. E. *et al.* (2016) *Sci Rep.* **6**:21780.
6. Zheng, J. *et al.* (2012) *Nature* **485**:656.
7. Siddigui, M. *et al.* (2017) *Eur. Heart J.* **38**:3569.