

DESCRIPTION

Source	Human embryonic kidney cell, HEK293-derived human SIRP delta protein		
	Human SIRP delta (Phe30-Arg197) Accession # Q9H106	IEGRMD	Human IgG ₁ (Pro100-Lys330)
	N-terminus		C-terminus
N-terminal Sequence	Phe30		
Analysis			
Structure / Form	Disulfide-linked homodimer		
Predicted Molecular Mass	45 kDa		

SPECIFICATIONS

SDS-PAGE	50-60 kDa, under reducing conditions
Activity	Measured by its binding ability in a functional ELISA. When Recombinant Human SIRP delta Fc Chimera (Catalog # 10138-SB) is immobilized at 1 µg/mL (100 µL/well), recombinant human DIRAS2 binds with an ED ₅₀ of 0.15-0.9 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 at ambient temperature. 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

<p>Binding Activity</p> <p>When Recombinant Human SIRP delta Fc Chimera (Catalog # 10138-SB) is immobilized at 1 µg/mL, recombinant human DIRAS2 binds with an ED₅₀ of 0.15-0.9 µg/mL.</p>	<p>SDS-PAGE</p> <p>2 µg/lane of Recombinant Human SIRP delta Fc Chimera (Catalog # 10138-SB) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 50-60 kDa and 100-120 kDa, respectively.</p>
--	--

BACKGROUND

SIRPD (Signal Regulatory Protein Delta), also known as Protein Tyrosine Phosphatase non-Receptor Type Substrate 1-Like 2 (PTPNS1L2), is a member of the signal regulatory proteins (SIRPS) family (1). SIRPD contains a 168 amino acid Ig-like domain that is characteristic of other SIRP family members (1). Unlike other members of the SIRPS family, SIRPD lacks the transmembrane region, and is secreted (2). Murine homologs of SIRPD are not characterized. Expression sequence tag analysis suggests that SIRPD may be expressed in sperm cells and respiratory tissue (2). Using BioPlex 2.0 (Biophysical Interactions of ORFeome-derived complexes) high-throughput affinity purification-mass spectrometry (AP-MS) analysis to identify probable protein-protein interactions, several candidate SIRPD interactions were found including DIRAS2 (3). In-house testing indicates SIRPD can interact with DIRAS2.

References:

1. Van den Berg, T.K. *et al.* (2005) *J. Immunol.* **175**:7788.
2. Van Beek, E.M. *et al.* (2005) *J. Immunol.* **175**:7781.
3. Huttlin, E.L. *et al.* (2017) *Nature* **545**:505.