Proteins

Product Data Sheet



LILRB4/CD85k/ILT3 Protein, Mouse (HEK293, His)

Cat. No.: HY-P72518

Synonyms: Leukocyte immunoglobulin-like receptor subfamily B member 4; CD85k; Lilrb4; Gp49b

Species: HEK293 Source:

Accession: Q64281 (G24-K238)

Gene ID: 14728 35-40 kDa Molecular Weight:

PROPERTIES

AA Sequence

GHLPKPIIWA EPGSVIAAYT SVITWCQGSW EAQYYHLYKE KSVNPWDTQV PLETRNKAKF NIPSMTTSYA GIYKCYYESA AGFSEHSDAM ELVMTGAYEN PSLSVYPSSN VTSGVSISFS CSSSIVFGRF ILIQEGKHGL $S\ W\ T\ L\ D\ S\ Q\ H\ Q\ A$ NQPSYATFVL DAVTPNHNGT FRCYGYFRNE POVWSKPSNS LDLMISETKD

QSSTPTEDGL ETYQK

Appearance

Lyophilized powder.

Formulation

Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.

Endotoxin Level

<1 EU/ μ g, determined by LAL method.

Reconsititution

It is not recommended to reconstitute to a concentration less than $100 \, \mu g/mL$ in ddH_2O . For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).

Storage & Stability

Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

Shipping

Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

LILRB4/CD85k/ILT3, an inhibitory receptor intricately involved in immune regulation, plays a crucial role in down-regulating immune responses. It serves as a receptor for FN1 and integrin ITGAV/ITGB3, exerting inhibitory effects on IgE-mediated mast cell activation and KITLG/SCF-mediated mast cell activation. Through its interaction with ITGAV/ITGB3, LILRB4/ILT3 further inhibits antibody production by memory and marginal zone B cells, likely by suppressing their differentiation into plasma cells. This multifaceted receptor extends its inhibitory influence to diverse immune functions, such as suppressing IFNG production by CD8 T cells, CD4 T cells, and natural killer cells, as well as inhibiting antigen presentation by dendritic

cells to T cells, preventing T cell activation. Additionally, LILRB4/ILT3 effectively inhibits lipopolysaccharide-mediated neutrophil-dependent vascular injury and contributes to the suppression of the allergic inflammatory response by impeding the infiltration of neutrophils and eosinophils while preventing mast cell degranulation. Its interactions, particularly when tyrosine phosphorylated, with SH2 domain-containing phosphatases PTPN6/SHP-1 and PTPN11/SHP-2 enhance the inhibition of mast cell activation.

Caution: Product has not been fully validated for medical applications. For research use only.

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