

## Product Data Sheet

## SLAMF2/CD48 Protein, Human (HEK293, His)

Cat. No.:	HY-P72919
Synonyms:	CD48 antigen; SLAMF2; TCT.1; CD48; BCM1; BLAST1
Species:	Human
Source:	HEK293
Accession:	P09326 (Q27-S220)
Gene ID:	962
Molecular Weight:	Approximately 40 kDa

PROPERTIES		
AA Sequence	MCSRGWDSCLALELLLLPLSLLVTSIQGHLVHMTVVSGSNVTLNISESLPENYKQLTWFYTFDQKIVEWDSRKSKYFESKFKGRVRLDPQSGALYISKVQKEDNSTYIMRVLKKTGNEQEWKIKLQVLDPVPKPVIKIEKIEDMDDNCYLKLSCVIPGESVNYTWYGDKRPFPKELQNSVLETTLMPHNYSRCYTCQVSNSVSSKNGTVCLSPPCTLARS	
Appearance	Lyophilized powder.	
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.	
Endotoxin Level	<1 EU/µg, determined by LAL method.	
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu\text{g}/\text{mL}$ in ddH_2O.	
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 The SLAMF2/CD48 Protein, a glycosylphosphatidylinositol (GPI)-anchored cell surface glycoprotein, plays a pivotal role in immune cell regulation and activation by interacting through its N-terminal immunoglobulin domain with cell surface receptors, such as 2B4/CD244 or CD2. In T-cell signaling transduction, SLAMF2 associates with CD2, facilitating the efficient recruitment of the Src family protein kinase LCK and LAT to the TCR/CD3 complex, thereby promoting LCK phosphorylation and subsequent activation. Furthermore, SLAMF2 induces the phosphorylation of the cytoplasmic immunoreceptor tyrosine switch motifs (ITSMs) of CD244, initiating a cascade of signaling events that culminate in the formation of the immunological

synapse and the directed release of cytolytic granules containing perforin and granzymes by T-lymphocytes and NK-cells. Notably, SLAMF2 interacts directly with CD2, CD244, and LCK, highlighting its intricate involvement in immune cell function and signaling pathways.

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

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