Proteins





Product Data Sheet

ALCAM/CD166 Protein, Mouse (HEK293, His)

Cat. No.: HY-P78236

Synonyms: CD166; ALCAM; MEMD; CD6L; KG-CAM

Species: Mouse HEK293 Source:

Accession: Q61490 (W28-K527)

Gene ID: 11658

Molecular Weight: 70-100 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4. Normally 8% trehalose is added as protectant before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu g/mL$ in ddH ₂ O.
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 ALCAM/CD166 protein, a cell adhesion molecule, orchestrates both heterotypic cell-cell contacts through its interaction with CD6 and homotypic cell-cell interactions. Its involvement in T-cell activation and proliferation is facilitated by interactions with CD6, contributing to the formation and maturation of the immunological synapse. ALCAM mediates homotypic interactions with ALCAM-expressing cells, facilitating dendritic cell attachment to endothelial cells and playing a role in inhibiting endothelial cell migration while promoting endothelial tube formation. Furthermore, ALCAM is indispensable for the normal organization of the lymph vessel network and hematopoietic stem cell engraftment in the bone marrow, impacting hematopoiesis by maintaining normal numbers of hematopoietic stem cells. Additionally, ALCAM promotes in vitro osteoblast proliferation and differentiation and plays a key role in neurite extension, axon growth, and axon guidance. The protein's interaction with CD6 and glycosylated extracellular domain interaction with LGALS1 and LGALS3 further contribute to its regulatory functions, with LGALS1 or LGALS3 inhibiting CD6 interaction. The multifaceted roles of ALCAM underscore its significance in diverse cellular processes and interactions.

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