

CD47 Protein, Mouse (HEK293, solution)

Cat. No.:	HY-P74289
Synonyms:	Leukocyte Surface Antigen CD47; IAP; CD47; MER6
Species:	Mouse
Source:	HEK293
Accession:	ADQ12919.1 (Q19-K140)
Gene ID:	16423
Molecular Weight:	Approximately 13.8 kDa

PROPERTIES

Appearance	Solution.
Formulation	Supplied as 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.
Reconstitution	N/A.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice

DESCRIPTION

Background	<p>CD47, also known as integrin-associated protein (IAP), is a transmembrane protein encoded by the CD47 gene. CD47 belongs to the immunoglobulin superfamily and binds to membrane integrins and ligands platelet reactive protein-1 (TSP-1) and signal regulatory protein α (SIRPα). CD47 is involved in a variety of biological processes, including signal transduction, cardiovascular homeostasis, inflammation, apoptosis, angiogenesis, cell self-renewal, and immune regulation. In addition, CD47 is also important in memory formation and synaptic plasticity in the hippocampus. As a receptor for SIRPA, it prevents immature dendritic cells from maturing and inhibits the production of cytokines by mature dendritic cells. Interaction with SIRPG enhances cell-cell adhesion, T-cell proliferation, and T-cell activation. CD47 positively regulates FAS-dependent T cell apoptosis and inhibits angiogenesis. It may also be involved in metabolic dysregulation during normal aging, regulating wound healing and stem cell self-renewal. CD47 may play a role in cell membrane transport, integrin-dependent signal transduction, and prevention of premature clearance of red blood cells. It interacts with THBS1, SIRPA, FAS/CD95, SIRPG, UBQLN1, UBQLN2, and fibrinogen. Activation of the CD47 receptor induces the proliferation of human astrocytoma cells through an AKT-dependent pathway. CD47 is a potential therapeutic target for some cancers and is also used to treat pulmonary fibrosis^{[1][2][3]}.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

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