

Recombinant HTLV-2 p24 Protein, 136-350, C-6×His tagged

Cat. No. p24-48H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Human T-lymphotropic virus 2 (HTLV-2) p24 gag protein produced in E. coli. There is evidence for dimer and higher oligomer formation.
Species	HTLV2
Source	E.coli
ProteinLength	136-350
Description	TLV-1 and HTLV-2 require cell-to-cell contact for efficient transmission and utilize envelope glycoprotein-mediated cell binding and entry (envelope glycoprotein gp62). Specific enzymatic cleavages in vivo yield mature proteins. Envelope glycoproteins are synthesized as an inactive precursor that is N-glycosylated and processed likely by host cell furin or by a furin-like protease in the Golgi to yield the mature SU (gp46) and TM (gp21) proteins. The cleavage site between SU and TM requires the minimal sequence [KR]-X-[KR]-R. HTLV-1 attachment and fusion to target cells begins when surface subunit (SU) of the HTLV-1 envelope glycoprotein interacts with three cellular surface receptors: Glucose Transporter (GLUT1), Heparin Sulfate Proteoglycan (HSPG) and the VEGF-165 receptor Neuropilin-1 (NRP-1). These receptors are widely distributed on target cells. The HTLV-1 and HTLV-2 surface (SU) and transmembrane (TM) subunits of Env share 65% and 79% residue identity, respectively. Despite this high similarity, HTLV-1 and HTLV-2 utilize a slightly different complex of receptor molecules. HTLV-1 utilizes heparan sulfate proteoglycan (HSPG) and neuropilin-1 (NRP1) for binding and glucose transporter 1 (GLUT1) for entry.

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HTLV-2 also utilizes NRP1 and GLUT1, but not HSPGs (Eusebio-Ponce et al., 2019; Martinez et al., 2019). The surface protein (SU) attaches the virus to the host cell by binding to its receptor. This interaction triggers the refolding of the transmembrane protein (TM) and is thought to activate its fusogenic potential by unmasking its fusion peptide. Fusion occurs at the host cell plasma membrane and the transmembrane protein (TM) acts as a class I viral fusion protein. Membrane fusion leads to delivery of the nucleocapsid into the cytoplasm.

Form	Liquid
Molecular Mass	Expected Molecular Weight: 26 kDa Observed Molecular Weight: 24 kDa
Storage	Short Term Storage: -80 centigrade Long Term Storage: -80 centigrade Can be frozen, but avoid multiple freeze-thaw cycles.
Concentration	1.04 mg/mL
Storage Buffer	DPBS buffer
References	1. Eusebio-Ponce E, Anguita E, Paulino-Ramirez R, Candel FJ. HTLV-1 infection: An emerging risk. Pathogenesis, epidemiology1. diagnosis and associated diseases. Rev Esp Quimioter. 2019 Dec;32(6):485-496. 2. Martinez MP, Al-Saleem J, Green PL. Comparative virology of HTLV-1 and HTLV-2. Retrovirology. 2019 Aug 7;16(1):21.

GENE INFORMATION

Gene Name	HTLV2gp2 hypothetical protein [Human T-lymphotropic virus 2]
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Official Symbol	HTLV2gp2
Synonyms	HTLV2gp2; hypothetical protein; hypothetical protein; p19-gag protein [2]; p24-gag protein [2]; p15-gag protein [2]; p24
Gene ID	1491944
Protein Refseq	NP_041002
UniProt ID	P03346
SDS-PAGE	