

Recombinant HTLV-2 Envelope Protein, sFc-tagged

Cat. No. HTL-289 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human T-cell lymphotropic virus type 2 (HTLV-2) envelope protein. The protein was produced in HEK293 cells and purified from culture supernatant with a TEV cleavage site and C-terminal sheep Fc-tag.
Tag	sheep Fc
Background	HTLV-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. 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

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

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.

Notes	This product is intended for research and manufacturing uses only. It is not a diagnostic device. The user assumes all responsibility for care, custody and control of the material, including its disposal, in accordance with all regulations.
--------------	--

Type	Recombinant
-------------	-------------

ClassID 1	Infectious Disease
------------------	--------------------

GENE INFORMATION

Synonyms	HTLV-2 Envelope
-----------------	-----------------

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA