Recombinant Protein Technical Manual

Recombinant Human Lacritin/LACRT Protein (His Tag)

RPES3065

Product Data:

Product SKU: RPES3065

Size: 10µg

Species: Human

Expression host: E. coli

Uniprot: Q9GZZ8

Protein Information:

Molecular Mass: 14.6 kDa

AP Molecular Mass: 21 kDa

Tag: N-6His

Bio-activity:

Purity: > 95 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH 7.4.

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: Extracellular Glycoprotein Lacritin; LACRT

Immunogen Information:

Sequence: Ala19-Ala138

Background:

Extracellular glycoprotein lacritin (Lacritin) is a secreted protein which consists of 119 amino acids after cleavage of the N-terminal signal peptide and displays several predicted alpha helices, mostly in the C-terminal half. Lacritin is highly expressed in the lacrimal gland, localizes primarily to secretory granules and secretory fluid. Lacritin modulates lacrimal acinar cell secretion, promotes ductal cell proliferation, and stimulates signaling through tyrosine phosphorylation and release of calcium. Lacritin is thus a multifunctional prosecretory mitogen with cell survival activity. Natural or bacterial cleavage of lacritin releases a C-terminal fragment that is bactericidal. Lacritin cell targeting is dependent on the cell surface heparan sulfate proteoglycan syndecan (SDC1). Binding utilizes an enzyme-regulated 'off-on' switch in which active epithelial heparanase (HPSE) cleaves off heparan sulfate to expose a binding site in the N-terminal region of syndecan's core protein.