Recombinant Human Lacritin/LACRT Protein (His Tag)

Catalog Number: PKSH032678

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

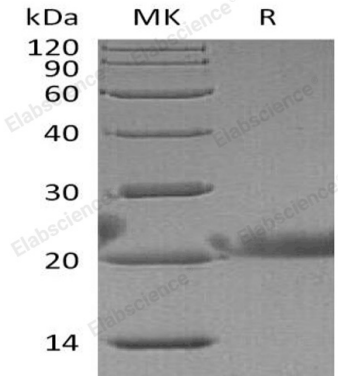
Description

Species	Human
Source	E.coli-derived Human Lacritin;LACRT protein Ala19-Ala138, with an N-terminal His
Calculated MW	14.6 kDa
Observed MW	22-30 kDa
Accession	Q9GZZ8
Bio-activity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. 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. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

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-1 (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-1's core protein.

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