

Recombinant Human Galectin-7His (rh GAL-7His)

Synonyms: HKL-14, PI7, p53-induced gene 1 protein, LGALS7, PIG1, LGALS7B, LGALS7A.

Introduction: Galectins are a family of animal lectins with an affinity for beta-galactosides. This family has at least 14 identified members. Galectins share similarities in the CRD (the carbohydrate recognition domain). Galectins are synthesized as cytosolic proteins. Though localized principally in the cytoplasm and lacking a classical signal peptide, galectins can also be stimulated to secretion by non-classical pathways or alternatively targeted to the nucleus. Galectins are involved in modulating cell-cell and cell-matrix interactions. Human Galectin-7 belongs to the prototypical Galectins containing a single CRD, which is initially identified in human epidermis as a monomer. The Galectin-7 expression is induced by tumor suppressor protein p53 and associated with apoptosis. Galectin-7 is a pro-apoptotic protein which functions intracellularly upstream of JNK activation and mitochondrial cytochrome c release. The correlation of Galectin-7 with the UV-induced apoptosis of keratinocytes presents a critical mechanism in the maintenance of epidermal homeostasis. Human Galectin-7 is localized in both nucleus and cytoplasm.

Description: Recombinant human Galectin-7 fused with a 20 amino acid His tag at N-terminus produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 156 amino acids (1-136 a.a.) and having a molecular mass of 17.2kDa.

The Galectin-7 is purified by proprietary chromatographic techniques.

Source: *Escherichia Coli*.

Physical Appearance: Sterile filtered white lyophilized (freeze-dried) powder.

Formulation: Lyophilized from a 0.2µm filtered solution in 50mM Tris-HCl buffer (pH 8.0)

Solubility: It is recommended to reconstitute the lyophilized rh GAL-7His in sterile H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized rh GAL-7His although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution Galectin-1 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity: Greater than 95.0% as determined by SDS-PAGE.

Amino Acid: MGSSHHHHHH SGLVPRGSH MSNVPKSSL PEGIRPGTVL RIRGLVPPNA SRFHVNLLCG
EEQGSDAALH FNPRLDTSEV VFNSKEQGSW GREERGPGVP FQRGQPFEVL IASDDGFKA VVGDAQYHHF
RHRLPLARVR LVEVGGDVQL DSVRIF.

Endotoxicity: The endotoxin level is less than 1 EU/µg determined by LAL method

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<i>small</i>	5 µg	Cat.N°	11345240
<i>medium</i>	20 µg	Cat.N°	11345244
<i>large</i>	100 µg	Cat.N°	11345246
<i>x-large</i>	500 µg	Cat.N°	11345247

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