Recombinant Human HES1, His-tagged

Cat. No. HES1-289H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Human HES1 (aa 2-280) is fused at the N-terminus to a His-tag.
Species	Human
Source	E.coli
ProteinLength	2-280 a.a.
Description	bHLH proteins are essential for neurogenesis, myogenesis, hematopoiesis and sex determination. HES1 (Hairy and Enhancer of Split 1) is a basic Helix-Loop-Helix (bHLH) transcriptional repressor regulated by the Notch pathway and expressed in various tissues. HES1 is well known in development of different tissues, particularly endoderm derived endocrine organs like pancreas and neuroendocrine cells of lung. HES1 controls normal development by regulating proliferation and differentiation and so cell fate. Notch signaling plays both oncogenic and tumor suppressor roles depending on cell type. In contrast to T cell acute lymphoblastic leukemia (ALL), where Notch activation promotes leukemogenesis, induction of Notch signaling in B cell ALL (B-ALL) leads to growth arrest and apoptosis. The Notch target HES1 is sufficient to reproduce this tumor suppressor phenotype in B-ALL by interacting and activating PARP-1 and regulating proapoptotic signals.
Form	Liquid. 0.2μm-filtered solution in 55mM TRIS-Cl, pH 8.2, containing 150mM NaCl.
Molecular Mass	~35kDa (SDS-PAGE)

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Purity	≥90% (SDS-PAGE)
Stability	Working aliquots are stable for up to 3 months when stored at -20°C.
Storage	Short Term Storage: +4°C; Long Term Storage: -20°C. After opening, prepare aliquots and store at -20°C. Avoid freeze/thaw cycles.

GENE INFORMATION

Gene Name	HES1 hairy and enhancer of split 1, (Drosophila) [Homo sapiens]
Official Symbol	HES1
Synonyms	HES1; hairy and enhancer of split 1, (Drosophila); hairy homolog (Drosophila) , HRY; transcription factor HES-1; bHLHb39; FLJ20408; HES 1; Hes1; hairy homolog; hairy-like protein; class B basic helix-loop-helix protein 39; HHL; HRY; HES-1;
Gene ID	3280
mRNA Refseq	NM_005524
Protein Refseq	NP_005515
MIM	139605
UniProt ID	Q14469
Chromosome Location	3q28-q29
Pathway	ATF-2 transcription factor network, organism-specific biosystem; C-MYB transcription factor network, organism-specific biosystem; Delta-Notch Signaling Pathway,

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	organism-specific biosystem; Developmental Biology, organism-specific biosystem; Fanconi anemia pathway, organism-specific biosystem; Fanconi anemia pathway, conserved biosystem; Id Signaling Pathway, organism-specific biosystem;
Function	DNA binding; N-box binding; RNA polymerase II core promoter proximal region sequence-specific DNA binding transcription factor activity involved in negative regulation of transcription; histone deacetylase binding; protein binding; protein homodimerization activity; sequence-specific DNA binding; sequence-specific DNA binding RNA polymerase II transcription factor activity; sequence-specific DNA binding transcription factor activity; transcription factor binding;

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