Recombinant Human GTF2H1 General Transcription Factor IIH, Polypeptide, T7-tagged

Cat. No. GTF2H1-2920H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human GTF2H1 protein was expressed in E.coli with T7-tag at the N-terminus. The molecular weight is 52114 Da(462 aa).
Species	Human
Source	E.coli
Description	General transcription factor IIH subunit 1 is a protein that in humans is encoded by the GTF2H1 gene. It is also known as Transcription factor II H (TFIIH). GEF2H1 is one of several general transcription factors that make up the RNA polymerase II preinitiation complex. GEF2H1 consists of ten subunits, 7 of which (XPD, XPB, p62, p52, p44, p34 and TTDA) form the core complex. The cyclin activating kinase-subcomplex (CDK7, MAT1, and cyclin H) is linked to the core via the XPD protein Two of the subunits, ERCC2/XPD and ERCC3/XPB, have helicase and ATPase activities and help create the transcription bubble. In a test tube these subunits are only required for transcription if the DNA template is not already denatured or if it is supercoiled. Two other GEF2H1 subunits, CDK7 and cyclin H, phosphorylate serine amino acids on the RNA polymerase II C-terminal domain and possibly other proteins involved in the cell cycle. Next to a vital function in transcription initiation, GEF2H1 is also involved in nucleotide excision repair.
Sequences of amino acids	1-462 aa

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Formulation	10 mM Tris. pH 8.0. 0.1% Triton X-100. 0.002% NaN3.
Purity	95%

GENE INFORMATION

Gene Name	GTF2H1 general transcription factor IIH, polypeptide [Homo sapiens]
Synonyms	BTF2; TFB1; TFIIH; GTF2H1; general transcription factor IIH subunit 1; BTF2 p62; basic transcription factor 2 62 kDa subunit; general transcription factor IIH polypeptide 1; TFIIH basal transcription factor complex p62 subunit
Gene ID	2965
mRNA Refseq	NM_005316
Protein Refseq	NP_005307
MIM	189972
UniProt ID	P32780
Chromosome Location	11p15.1-p14
Pathway	Basal transcription factors; Nucleotide excision repair; DNA Repair; Gene Expression; HIV Infection; Transcription; mRNA Processing
Function	contributes_to DNA-dependent ATPase activity; contributes_to RNA polymerase II carboxy-terminal domain kinase activity; general RNA polymerase II transcription factor activity; protein binding; contributes_to protein kinase activity

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PDBrendering based on 1pfj.	

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