



# **Product** Data Sheet

## **USF1 Protein, Human (His)**

Cat. No.: HY-P700514

Synonyms: USF1; upstream transcription factor 1; UEF; FCHL; MLTF; FCHL1; MLTFI; HYPLIP1; bHLHb11;

OTTHUMP00000029691; OTTHUMP00000029693; USF; Major late transcription factor 1;

upstream stimulatory factor 1

Species: Human Source: E. coli

Accession: P22415 (G3-N310)

Gene ID: 7391 Molecular Weight: 37.3 kDa

#### **PROPERTIES**

AA Sequence	AA	Seq	uen	ce
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GQQKTAETEE GTVQIQEGAV ATGEDPTSVA IASIQSAATF PDPNVKYVFR TENGGQVMYR VIQVSEGQLD GQTEGTGAIS GYPATQSMTQ AVIQGAFTSD DAVDTEGTAA ETHYTYFPST AVGDGAGGTT SGSTAAVVTTQGSEALLGQA TPPGTGQFFV MMSPQEVLQG GSQRSIAPRT HPYSPKSEAP RTTRDEKRRA QHNEVERRRR DKINNWIVQL SKIIPDCSME STKSGQSKGG ELRQSNHRLS ILSKACDYIQ EELQGLDQLQ LDNDVLRQQV VVIKNDSN EDLKNKNLLL RAQLRHHGLE

**Appearance** 

Lyophilized powder.

**Formulation** 

Lyophilized from a 0.2 µm filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.

**Endotoxin Level** 

<1 EU/µg, determined by LAL method.

Reconsititution

It is not recommended to reconstitute to a concentration less than 100  $\mu g/mL$  in ddH<sub>2</sub>O.

Storage & Stability

Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

Shipping

Room temperature in continental US; may vary elsewhere.

#### **DESCRIPTION**

### Background

The USF1 protein functions as a transcription factor, binding to symmetrical DNA sequences known as E-boxes (5'-CACGTG-3'), which are prevalent in a diverse array of viral and cellular promoters. Effective DNA binding necessitates dimerization, typically with another basic helix-loop-helix (bHLH) protein. USF1 engages in DNA binding both as a homodimer and as a heterodimer in association with USF2. Notably, USF1 also interacts with the varicella-zoster virus IE62 protein, indicating its involvement in molecular interactions with viral components. This versatile binding capacity and interaction profile

Caution: Product ha	s not been fully validated for m	nedical applications. For research use only.	
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 $highlight\ the\ regulatory\ role\ of\ USF1\ in\ transcriptional\ processes\ across\ various\ cellular\ and\ viral\ contexts.$ 

Page 2 of 2 www.MedChemExpress.com