# **Human SUB1 Protein (His Tag)**

Catalog Number: 14326-H07E



# **General Information**

### Gene Name Synonym:

p14; P15; PC4; RPO2TC1; SUB1

### **Protein Construction:**

A DNA sequence encoding the mature form of human SUB1 (P53999) (Met1-Leu127) was expressed with a polyhistide tag at the N-terminus.

Source: Human

Expression Host: E. coli

**QC** Testing

Purity: > 90 % as determined by SDS-PAGE

**Endotoxin:** 

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: His

# **Molecular Mass:**

The recombinant human SUB1 consists of 142 amino acids and predicts a molecular mass of 16.2 KDa. It migrates as an approximately 19 KDa band in SDS-PAGE under reducing conditions.

### Formulation:

Lyophilized from sterile PBS, 10% glycerol, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

# **Usage Guide**

### Storage:

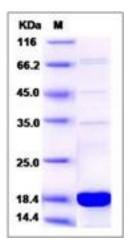
Store it under sterile conditions at  $-20\,^\circ\!\mathrm{C}$  to  $-80\,^\circ\!\mathrm{C}$  upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

# Reconstitution:

Detailed reconstitution instructions are sent along with the products.

#### SDS-PAGE:



# **Protein Description**

SUB1 belongs to the transcriptional coactivator PC4 family. It is a general coactivator that functions cooperatively with TAFs and mediates functional interactions between upstream activators and the general transcriptional machinery. SUB1 binds single-stranded DNA. Single-stranded DNA-binding proteins play many roles in nucleic acid metabolism, but their importance during transcription remains unclear. SUB1 exhibits strong genetic interactions with factors necessary for promoter melting. It localizes near the transcription bubble in vitro and binds to promoters in vivo dependent upon preinitiation complexes assembly. SUB1 interacts with the nontemplate strand of RNApII complexes during initiation. It may also be involved in stabilizing the multiprotein transcription complex.

### References

1.Knaus R, et al. (1996) Yeast SUB1 is a suppressor of TFIIB mutations and has homology to the human co-activator PC4. EMBO J. 15(8):1933-40. 2.Ge H, et al. (1994) Purification, cloning, and characterization of a human coactivator, PC4, that mediates transcriptional activation of class II genes. Cell. 78(3):513-23. 3.Kaiser K, et al. (1994) A novel mediator of class II gene transcription with homology to viral immediate-early transcriptional regulators. Cell. 78(3):525-34.

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