# Human MAX / MYC associated factor X Protein (His & GST Tag)

Catalog Number: 12885-H20B



## **General Information**

### Gene Name Synonym:

bHLHd4

#### **Protein Construction:**

A DNA sequence encoding the human MAX (NP\_002373) (Met1-Ser160) was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

**QC** Testing

Purity: > 85 % as determined by SDS-PAGE

**Endotoxin:** 

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt  $\,$  at -70  $\,$   $^{\circ}$ C

Predicted N terminal: Met

**Molecular Mass:** 

The recombinant human MAX consists of 397 amino acids and has a calculated molecular mass of 46.1 kDa. The recombinant protein migrates as an approximately 73 kDa band in SDS-PAGE under reducing conditions.

#### Formulation:

Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 8.0, 10% gly

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:

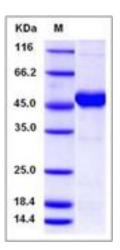
Store it under sterile conditions at  $-20\,^\circ\mathrm{C}$  to  $-80\,^\circ\mathrm{C}$  upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

#### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

#### SDS-PAGE:



## **Protein Description**

MYC associated factor X contains 1 basic helix-loop-helix (bHLH) domain and belongs to MAX family. It is highly expressed in the brain, heart and lung while lower levels are seen in the liver, kidney and skeletal muscle. MYC associated factor X can form homodimers and heterodimers with other family members, which include Mad, Mxi1 and Myc. Myc is an oncoprotein implicated in cell proliferation, differentiation and apoptosis. The homodimers and heterodimers compete for a common DNA target site (the E box) and rearrangement among these dimer forms provides a complex system of transcriptional regulation. MYC associated factor X may also repress transcription via the recruitment of a chromatin remodeling complex containing H3 'Lys-9' histone methyltransferase activity. Multiple alternatively spliced transcript variants have been described for MYC associated factor X gene but the full-length nature for some of them is unknown.

## References

1.Mac Partlin M, et al. (2003) Interactions of the DNA mismatch repair proteins MLH1 and MSH2 with c-MYC and MAX. Oncogene. 22(6):819-25. 2.Cheng SW, et al. (1999) c-MYC interacts with INI1/hSNF5 and requires the SWI/SNF complex for transactivation function. Nat enet. 22(1):102-5. 3.McMahon SB, et al. (1998) The novel ATM-related protein TRRAP is an essential cofactor for the c-Myc and E2F oncoproteins. Cell. 94(3):363-74.

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