Active Recombinant Human MYC Associated Factor X, Flag-tagged

Cat. No. MAX-2506H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human Flag-tagged MAX was expressed in an*E. coli*system and purified by affinity and FPLC chromatography. 18 kDa.
Species	Human
Source	E.coli
Description	The MAX gene encodes a protein that interacts specifically with the Myc protein to form a heterodimer with high affinity for the specific cognate DNA-binding site of Myc. The protein encoded by this gene is a member of the basic helix-loop-helix leucine zipper (bHLHZ) family of transcription factors. It is able to 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. Substantial evidence has been accumulated over the years that support the model that Myc/MAX/MAD proteins affect different aspects of cell behavior, including proliferation, differentiation, and apoptosis, by modulating distinct target genes. The unbalanced expression of these genes, e.g. in response to deregulated Myc expression, is most likely an important aspect of Myc`s ability to stimulate tumor formation. It is reported that in vivo transactivation assays suggest that Myc-MAX and MAD-MAX complexes have opposing functions in transcription and that MAX plays a central role in this network of transcription factors. High levels

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	of MAX and stress-induced NF- κB activation may result in elevated expression of Fas ligand in human lung cancer cells and possibly contribute to Fas ligand-associated immune escape mechanisms.
Applications	MAX can be applied to DNA binding, proliferation, differentiation, and apoptosis research studies.
Activity	1 unit equals 1 nanogram of purified protein.
Transcript Variant	This variant encodes the predominant isoform (a) which is also known as the long form.
Quality Control	The purified protein is greater than 95% homogeneous based on SDS-PAGE gel analysis.
Reagents Supplied	1x dilution buffer A: 20mM Tris-Cl (pH 8.0), 20% Glycerol, 100mM KCl, 0.2mM EDTA and 1mM DTT.
Storage Conditions	Store at -80°C.
Pathways	MAPK signaling pathway; Pathways in cancer; Small cell lung cancer

GENE INFORMATION

Gene Name	MAX MYC associated factor X [Homo sapiens]
Synonyms	MYC associated factor X; orf1; bHLHd4; bHLHd5; bHLHd6; bHLHd7; bHLHd8; MGC10775; MGC11225; MGC18164; MGC34679; MGC36767; MAX; protein max; myc-associated factor X; helix-loop-helix zipper protein; class D basic helix-loop-helix protein 4; MAX protein; Myc-associated factor X

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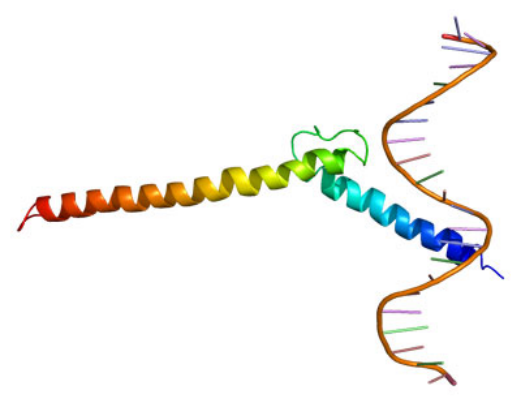
Gene ID	4149
mRNA Refseq	NM_002382
Protein Refseq	NP_002373
MIM	154950
UniProt ID	P61244
Chromosome Location	14q23
Function	protein binding; protein heterodimerization activity; sequence-specific DNA binding; transcription coactivator activity; transcription cofactor activity; transcription factor activity
PDB rendering based on 1an2.	

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