

Anti-MAX Picoband Antibody

Catalog # ABO10283

Product Information

Application	WB, IHC-P, E
Primary Accession	P61244
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for MAX detection. Tested with WB, IHC-P, Direct ELISA in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	4149
Other Names	Protein max, Class D basic helix-loop-helix protein 4, bHLHd4, Myc-associated factor X, MAX, BHLHD4
Calculated MW	18275
Application Details	Western blot, 0.1-0.5 μ g/ml Immunohistochemistry(Paraffin-embedded Section), 0.5-1 μ g/ml Direct ELISA, 0.1-0.5 μ g/ml
Subcellular Localization	Nucleus. Cell projection, dendrite.
Tissue Specificity	High levels found in the brain, heart and lung while lower levels are seen in the liver, kidney and skeletal muscle.
Source	Eukaryota
Contents	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Immunogen	E. coli-derived human MAX recombinant protein (Position: A30-R106).
Cross Reactivity	No cross reactivity with other proteins.
Storage	At -20 °C; for one year. After r ° Constitution, at 4 °C; for one month. It ° Can also be aliquotted and stored frozen at -20 °C; for a longer time. Avoid repeated freezing and thawing.

Protein Information

Name	MAX (HGNC:6913)
Synonyms	BHLHD4
Function	Transcription regulator. Forms a sequence-specific DNA- binding protein complex with MYC or MAD which recognizes the core sequence 5'-CAC[GA]TG-3'. The MYC:MAX complex is a transcriptional activator, whereas the MAD:MAX complex is a repressor. May repress transcription via the recruitment of a chromatin remodeling complex containing H3 'Lys-9' histone methyltransferase activity. Represses MYC transcriptional activity from E-box elements.
Cellular Location	Nucleus. Cell projection, dendrite.
Tissue Location	High levels found in the brain, heart and lung while lower levels are seen in the liver, kidney and skeletal muscle

Background

MAX(Max protein), also called Myc-associated factor x, is the most conserved dimerization component of the MYC-MAX-MXD1 network of basic helix-loop-helix leucine zipper (bHLHZ) transcription factors that regulate cell proliferation, differentiation, and apoptosis. The conservation of the MAX sequence is particularly high in the bHLHZ domain, which is involved in protein-protein interactions and DNA binding. The MAX gene is located on chromosome 14q23 by fluorescence in situ chromosomal hybridization. Both quasisymmetric heterodimers resemble the symmetric MAX homodimer, albeit with marked structural differences in the coiled-coil leucine zipper regions that explain preferential homo- and heteromeric dimerization of these 3 evolutionarily related DNA-binding proteins. MAX acts as a classic tumor suppressor gene. Normal lymphocytes from patients showed absence of methylation of the MAX promoter and biallelic expression of MAX, which ruled out an imprinting-mediated effect on MAX expression. The ability of these cells to divide, differentiate, and apoptose in the absence of Max demonstrated for the first time that these processes can occur via Max- and possibly Myc-independent mechanisms.

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