Recombinant MAD3 protein (His tag)

Catalog Number	543522
Synonyms	Max dimerizer 3; Class C basic helix-loop-helix protein 13; bHLHc13; Max-associated protein 3; Max-interacting transcriptional repressor MAD3; Myx
Species	Human
Expression System	E. coli
Accession	Q9BW11
Molecular Weight	Predictes a molecular mass of 15.58 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 17 kDa band.

Product Information

Sequence Region	56-174
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 56-174 aa (Q9BW11) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Introducing the Recombinant Human Max Dimerization Protein 3 (MXD3) bHLH Domain Fragment (aa 56-174), a high-purity protein designed for studying transcriptional repression mechanisms. This fragment fully encompasses the essential basic helix-loop-helix (bHLH) domain, making it an ideal tool for investigating MYC antagonism and DNA-binding interactions in cellular regulation. Max Dimerization Protein 3 (MXD3) is a transcriptional repressor in humans that binds with MAX to form sequence-specific DNA-binding complexes recognizing the core sequence 5'-CAC[GA]TG-3'. It localizes to the nucleus and functions as a key antagonist of MYC transcriptional activity by competing for MAX binding, thereby suppressing MYC-dependent cell transformation. This repressive activity positions MXD3 as a critical regulator in cell proliferation and transformation pathways, with implications for cancer research and cellular differentiation studies.