Recombinant MAD4 protein (His tag)

Catalog Number	549210
Synonyms	Max dimerizer 4; Class C basic helix-loop-helix protein 12; bHLHc12; Max-associated protein 4; Max-interacting transcriptional repressor MAD4
Species	Human
Expression System	E. coli
Accession	Q14582
Molecular Weight	Predictes a molecular mass of 11.88 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 12 kDa band.

Product Information

Sequence Region	53-137
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 53-137 aa (Q14582) 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	This recombinant protein product features a carefully designed fragment (residues 53-137) of the human Max dimerization protein 4 (MXD4), encompassing the complete basic helix-loop-helix (bHLH) domain. This fragment serves as an essential tool for researchers studying transcriptional repression mechanisms, MAX dimerization, and MYC antagonism in cellular processes. The full-length Max dimerization protein 4 (MXD4) is a transcriptional repressor that functions by binding with MAX to form a sequence-specific DNA-binding complex targeting the core sequence 5'-CAC[GA]TG-3'. It plays a critical role in antagonizing MYC transcriptional activity through competition for MAX, thereby suppressing MYC-dependent cell transformation. MXD4 is localized to the nucleus, consistent with its function in transcriptional regulation. The provided fragment (53-137) specifically contains the bHLH domain, enabling focused investigation into dimerization and DNA-binding activities central to its repressive function.