# Recombinant MAFB protein (His tag)

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| **Catalog Number** | 541634 |
| **Synonyms** | Maf-B; V-maf musculoaponeurotic fibrosarcoma oncogene homolog B |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | Q9Y5Q3 |
| **Molecular Weight** | Predictes a molecular mass of 15.50 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 16 kDa band. |

## Product Information

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| **Sequence Region** | 207-323 |
| **Form** | Lyophilized powder |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4 |
| **Purity** | >88%, 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 207-323 aa (Q9Y5Q3) were fused with 6His tag. |

## Storage & Handling

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| **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.<br>Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise. |

## Description

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| **Description** | Introducing the recombinant human Transcription factor MafB (Maf-B) fragment (amino acids 207-323), a highly specific protein tool designed for researchers studying transcriptional regulation and cell differentiation. This fragment fully encompasses the bZIP functional domain, making it an ideal reagent for investigating DNA binding, dimerization, and lineage-specific gene expression mechanisms in myeloid, pancreatic, and renal systems.<br>Transcription factor MafB (MAFB) is a crucial regulator in human cells that functions as both a transcriptional activator and repressor, playing pivotal roles in hematopoiesis, monocytic/macrophage differentiation, osteoclast formation, and pancreatic islet beta cell development. It specifically represses ETS1-mediated transcription of erythroid genes in myeloid cells while activating insulin and glucagon promoters. MafB is involved in renal tubule survival, podocyte differentiation, and F4/80 maturation, and demonstrates context-dependent oncogenic or tumor suppressor activities. The protein localizes to the nucleus where it binds to specific promoter elements, with its activity being modulated by SUMO modification. The bZIP domain contained within this fragment is essential for DNA binding and protein dimerization, central to MafB's transcriptional regulatory functions. |