

Goat Anti-ARMET Antibody
Peptide-affinity purified goat antibody
Catalog # AF1104a**Specification**

Goat Anti-ARMET Antibody - Product Information

Application	WB, E
Primary Accession	P55145
Other Accession	NP_006001 , 7873 , 74840 (mouse) , 315989 (rat)
Reactivity	Human
Predicted	Mouse, Rat, Dog
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	20700

Goat Anti-ARMET Antibody - Additional Information**Gene ID** 7873**Other Names**

Mesencephalic astrocyte-derived neurotrophic factor, Arginine-rich protein, Protein ARMET, MANF, ARMET, ARP

Dilution

WB~~1:1000

E~~N/A

Format

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Goat Anti-ARMET Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-ARMET Antibody - Protein Information**Name** MANF ([HGNC:15461](#))**Synonyms** ARMET, ARP

Function

Selectively promotes the survival of dopaminergic neurons of the ventral mid-brain (PubMed:12794311). Modulates GABAergic transmission to the dopaminergic neurons of the substantia nigra (By similarity). Enhances spontaneous, as well as evoked, GABAergic inhibitory postsynaptic currents in dopaminergic neurons (By similarity). Inhibits cell proliferation and endoplasmic reticulum (ER) stress-induced cell death (PubMed:18561914, PubMed:22637475, PubMed:29497057, PubMed:36739529). Retained in the ER/sarcoplasmic reticulum (SR) through association with the endoplasmic reticulum chaperone protein HSPA5 under normal conditions (PubMed:22637475). Stabilizes HSPA5/BiP in its substrate-bound ADP state, which facilitates HSPA5/BiP incorporation into chaperone-client complexes during endoplasmic reticulum stress, its interaction with HSPA5/BiP inhibits ATP binding to HSPA5/BiP and subsequent nucleotide exchange (By similarity). As a result acts as a repressor of the unfolded protein response (UPR) pathway (By similarity). Up-regulated and secreted by the ER/SR in response to ER stress and hypoxia (PubMed:22637475). Following secretion by the ER/SR, directly binds to 3-O-sulfogalactosylceramide, a lipid sulfatide in the outer cell membrane of target cells (PubMed:29497057). Sulfatide binding promotes its cellular uptake by endocytosis, and is required for its role in alleviating ER stress and cell toxicity under hypoxic and ER stress conditions (PubMed:29497057). Essential for embryonic lung development (By similarity). Required for the correct postnatal temporal and structural development of splenic white pulp (By similarity). Required for the repair-associated myeloid response in skeletal muscle, acts as a regulator of phenotypic transition towards prorepair macrophages in response to muscle injury and as a result limits excessive proinflammatory signaling (By similarity). Represses RELA expression and therefore NF- κ B signaling in the myocardium, as a result limits macrophage infiltration of injured tissue and M1 macrophage differentiation in response to myocardial injury (By similarity). Required for endochondral ossification in long bones and the skull during postnatal development (By similarity).

Cellular Location

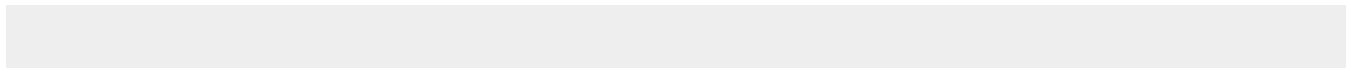
Secreted. Endoplasmic reticulum lumen. Sarcoplasmic reticulum lumen. Note=Retained in the endoplasmic reticulum (ER), and sarcoplasmic reticulum (SR) under normal conditions (PubMed:22637475). Up-regulated and secreted by the ER/SR in response to ER stress and hypoxia (PubMed:22637475, PubMed:29497057)

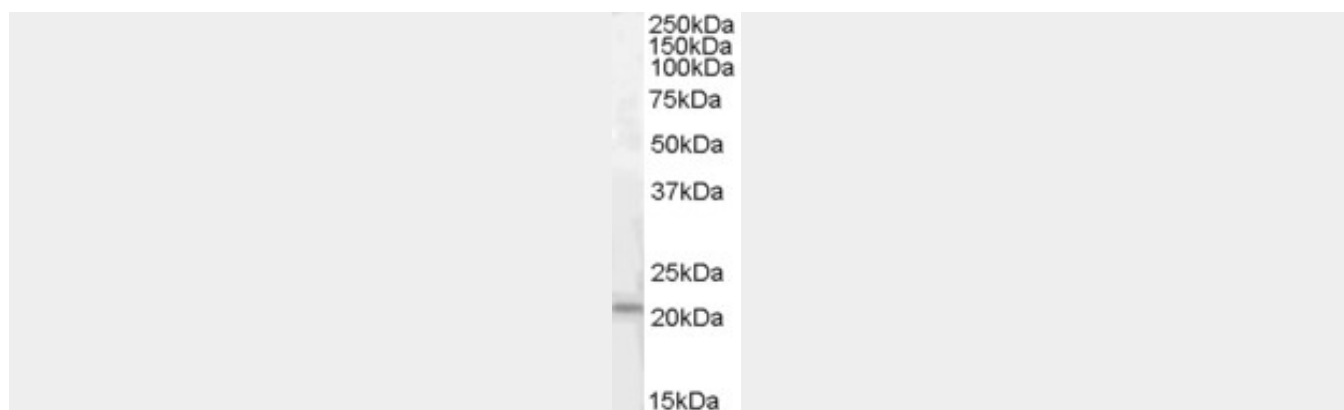
Goat Anti-ARMET Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Goat Anti-ARMET Antibody - Images





AF1104a (0.3 µg/ml) staining of Human Pancreas lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-ARMET Antibody - Background

The protein encoded by this gene is localized in the endoplasmic reticulum (ER) and golgi, and is also secreted. Reducing expression of this gene increases susceptibility to ER stress-induced death and promotes cell proliferation. The protein was initially thought to be longer at the N-terminus and to contain an arginine-rich region but transcribed evidence indicates a smaller open reading frame that does not encode the arginine tract. The presence of polymorphisms in the arginine-rich region, including a specific mutation that changes the previously numbered codon 50 from ATG to AGG, have been reported in a variety of solid tumors; however, these polymorphisms were later shown to exist in normal tissues and are thus not tumor-related.

Goat Anti-ARMET Antibody - References

Novel CDNF/MANF family of neurotrophic factors. Lindholm P, et al. Dev Neurobiol, 2010 Apr. PMID 20186704.

Mesencephalic astrocyte-derived neurotrophic factor is neurorestorative in rat model of Parkinson's disease. Voutilainen MH, et al. J Neurosci, 2009 Jul 29. PMID 19641128.

Mesencephalic astrocyte-derived neurotrophic factor reduces ischemic brain injury and promotes behavioral recovery in rats. Airavaara M, et al. J Comp Neurol, 2009 Jul 1. PMID 19399876.

The structure of the conserved neurotrophic factors MANF and CDNF explains why they are bifunctional. Parkash V, et al. Protein Eng Des Sel, 2009 Apr. PMID 19258449.

MANF is widely expressed in mammalian tissues and differently regulated after ischemic and epileptic insults in rodent brain. Lindholm P, et al. Mol Cell Neurosci, 2008 Nov. PMID 18718866.