

AIF1 Protein, Mouse (His)

Cat. No.:	HY-P72075
Synonyms:	Aif1; Iba1Allograft inflammatory factor 1; AIF-1; Ionized calcium-binding adapter molecule 1
Species:	Mouse
Source:	E. coli
Accession:	O70200 (S2-P147)
Gene ID:	11629
Molecular Weight:	Approximately 20.8 kDa

PROPERTIES

AA Sequence	<p>S Q S R D L Q G G K A F G L L K A Q Q E E R L E G I N K Q F L D D P K Y S N D E</p> <p>D L P S K L E A F K V K Y M E F D L N G N G D I D I M S L K R M L E K L G V P K</p> <p>T H L E L K R L I R E V S S G S E E T F S Y S D F L R M M L G K R S A I L R M I</p> <p>L M Y E E K N K E H K R P T G P P A K K A I S E L P</p>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm solution of Tris-based buffer, 50% Glycerol.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	Allograft inflammatory factor-1 (AIF-1), which is also known as ionized calcium-binding adapter molecule 1 (Iba1), is a cytoplasmic protein with EF-hand calcium-binding domains and was first observed in the macrophages of rat heart allografts under chronic rejection. AIF-1 is highly expressed in the monocytic lineage, including macrophages and microglia, and is involved in phagocytosis and the formation of membrane ruffling through Rac1, which belongs to the Rho-family of GTPases. AIF-1 is not present in cultured human VSMCs but is induced by cytokines, and overexpression of AIF-1 results in increased VSMC growth and cell-cycle gene expression ^{[1][2]} .
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REFERENCES

[1]. Autieri MV, et, al. AIF-1 is an actin-polymerizing and Rac1-activating protein that promotes vascular smooth muscle cell migration. Circ Res. 2003 May 30;92(10):1107-14.

[2]. Kishikawa S, et, al. Allograft inflammatory factor 1 is a regulator of transcytosis in M cells. Nat Commun. 2017 Feb 22;8:14509.

Caution: Product has not been fully validated for medical applications. For research use only.

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