

Iba1 Protein, Human, Recombinant (His)

General Information

Synonyms:	IRT1;IRT-1;AIF-1;allograft inflammatory factor 1;IBA1
Protein Construction:	A DNA sequence encoding the mature form of human AIF1 (P55008-1) (Met1-Pro147) was expressed with a polyhistidine tag at the N-terminus. Predicted N terminal: His
Species:	Human
Expression Host:	E. coli
Accession:	P55008-1
Molecular Weight:	18.5 kDa (predicted); 18 kDa (reducing conditions)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 85 % as determined by SDS-PAGE
Endotoxin:	Please contact us for more information.
Formulation:	Lyophilized from a solution filtered through a 0.22 µm filter, containing PBS, 10% glycerol, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:
A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:
It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:
In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

AIF1, also known as IBA1, is an actin-binding protein. AIF1 is expressed selectively in human macrophage-like cell lines, and in a subset of CD68(+) macrophages in the interstitial and perivascular spaces of human heart allografts. It is expressed in macrophages and neutrophils. AIF1 enhances membrane ruffling and RAC activation. AIF1 enhances the actin-bundling activity of LCP1. It also enhances lymphocyte migration. AIF1 may play a role in macrophage activation and function. It binds calcium and plays a role in RAC signaling and in phagocytosis. It

promotes the proliferation of vascular smooth muscle cells and of T-lymphocytes.

Reference

Albertella M.R., et al.,(1994), Characterization of a novel gene in the human major histocompatibility complex that encodes a potential new member of the I kappa B family of proteins. Hum. Mol. Genet. 3:793-799.

Holzinger I., et al., (1995), Cloning and genomic characterization of LST1: a new gene in the human TNF region. Immunogenetics 42:315-322.

Autieri M.V., et al.,(1996), cDNA cloning of human allograft inflammatory factor-1: tissue distribution, cytokine induction, and mRNA expression in injured rat carotid arteries. Biochem. Biophys. Res. Commun. 228:29-37.

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