

ALOX12 Protein, Human (His)

Cat. No.:	HY-P72076
Synonyms:	12 LOX; 12S; lipoxygenase ; 12-lipoxygenase; 12LO; 12S LOX; 12S-lipoxygenase; 12S-LOX; 12S-type; Alox12; Arachidonate 12 lipoxygenase; Arachidonate 12 lipoxygenase, 12S type; Arachidonate 12-lipoxygenase; Arachidonate 12-oxidoreductase; Lipoxin synthase 12-LO; LOG12; LOX12_HUMAN; P-12LO; Platelet 12-LOX; Platelet type lipoxygenase 12 ; platelet-type 12-lipoxygenase; Platelet-type lipoxygenase 12
Species:	Human
Source:	E. coli
Accession:	P18054 (M1-I663)
Gene ID:	239
Molecular Weight:	Approximately 79.8 kDa

PROPERTIES

AA Sequence

MGRYRIRVAT	GAWLFSGSYN	RVQLWLVGTR	GEAELELQLR
PARGEEEF	HDVAEDLGLL	QFVRLRKHHW	LVDDAWFCDR
ITVQGGPACA	EVAFPCYRWV	QGEDILSLPE	GTARLPGDNA
LDMFQKHREK	ELKDRQQIYC	WATWKEGLPL	TIAADRKDDL
PPNMRFHEEK	RLDFEWTLKA	GALEMALKRV	YTLLSSWNCL
EDFDQIFWGQ	KSALAEKVRQ	CWQDDELFSY	QFLNGANPML
LRRSTSLPSR	LVLPSGMEEL	QAQLEKELQN	GSLFEADFIL
LDGIPANVIR	GEKQYLAAPL	VMLKMEPNGK	LQPMVIQIQP
PNPSSPTPTL	FLPSDPPLAW	LLAKSWVRNS	DFQLHEIQYH
LLNTHLVAEV	I AVATMRCLP	GLHPIFKFLI	PHIRYTM EIN
TRARTQLISD	GGIFDKAVST	GGGGHVQLLR	RAAAQLTYCS
LCPPDDLADR	GLLGLPGALY	AHDALRLWEI	IARYVEGIVH
LFYQRDDIVK	GDPELQAWCR	EITEVGLCQA	QDRGFVVSFQ
SQSQLCHFLT	MCVFTCTAQH	AAINQGQLDW	YAWVPNAPCT
MRMPPPTTKE	DVTMATVMGS	LPDVRQACLQ	MAISWHL SRR
QPDMPVPLGHH	KEYYFSGPKP	KAVLNQFRTD	LEKLEKEITA
RNEQLDWPYE	Y LK P S C I E N S	V T I	

Biological Activity The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.

Appearance Lyophilized powder.

Formulation Lyophilized from a 0.2 µm sterile filtered 10 mM Tris-HCl, 1 mM EDTA, 6% Trehalose, pH 8.0.

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 ddH₂O.

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**

ALOX12 mainly metabolizes arachidonic acid to 12S-hydroperoxyeicosatetraenoic acid (12(S)-HpETE) and further reduces it to 12(S)-HETE by peroxyglutathione. ALOX12 is widely expressed in various cell types. Because ALOX12 has the function of regulating platelet aggregation, cell migration, and tumor cell proliferation, it is mainly involved in the development of diseases such as thrombosis, atherosclerosis, and cancer. ALOX12 is involved in the regulation of inflammation and apoptosis and is involved in the development of liver injury through the activation of the NF- κ B signaling pathway and Caspase-3. ALOX12 plays an important role in the occurrence and development of diseases.

REFERENCES

[1]. Zheng Z, et al. The biological role of arachidonic acid 12-lipoxygenase (ALOX12) in various human diseases. *Biomed Pharmacother.* 2020;129:110354.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA