

Kallistatin (KAL) Active Protein | KAL active protein

Active Kallistatin (KAL)

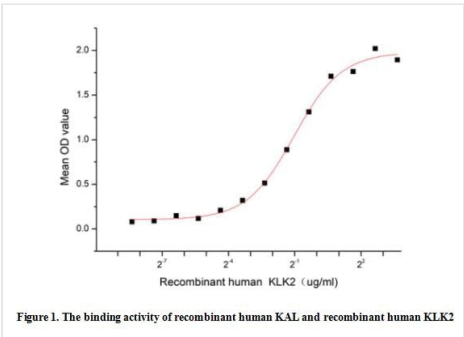
CATALOG # AAA161912	HOST E Coli	APPLICATIONS Activity Assay, Cell Culture
-------------------------------	-----------------------	---

PRODUCT SYNONYMS

Kallistatin (KAL); Active Kallistatin (KAL); Kallistatin; SERPINA4; KLST; KST; PI4; Serpin Peptidase Inhibitor Clade A Member 4; Tissue Kallikrein Inhibitor; Kallikrein Binding Protein; Peptidase inhibitor 44; KAL active protein

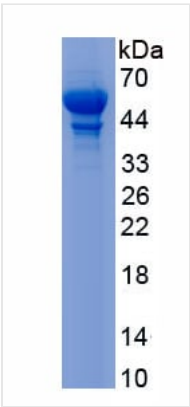
PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	Greater than 80% by SDS-PAGE
Form/Format	Freeze-dried powder; PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Sequence	Gln21~Pro4 27
Applicable Applications for KAL active protein	Activity Assay, Cell Culture
Species	Human
Expression System	Prokaryotic expression
Tag	N-terminal His Tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method)
Isoelectric Point	8.1
Research Area	Infection immunity
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months



Bioactivity

Kallistatin (KAL), a member of serpin family, can Inhibit human amidolytic and kininogenase activities of tissue kallikrein. KAL is widely distributed in a variety of organs and body fluids and has biological effects such as anti-inflammatory, antioxidant stress, anti-angiogenesis and anti-tumor. Besides, Kallikrein 2 (KLK2) has been identified as an interactor of KAL, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human KAL and recombinant human KLK2. Briefly, KLK2 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to KAL-coated microtiter wells and incubated for 1h at 37 degree C. Wells were washed with PBST and incubated for 1h with anti-KLK2 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37 degree C, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 degree C. Finally, add 50 uL stop solution to the wells and read at 450/630 nm immediately. When recombinant human KAL is immobilized at 2 ug/mL (100 uL/well), the concentration of KLK2 that produces 50% optimal binding response is found to be approximately 0.49 ug/mL.



SDS-PAGE
Figure. SDS-PAGE

ADDITIONAL INFORMATION

Product Categories/Family for KAL active protein	Active proteins
--	-----------------

NCBI AND UNIPROT INFORMATION

NCBI GI #	573459745
NCBI GeneID	5267
NCBI Accession #	NP_001275962.1
NCBI GenBank Nucleotide #	NM_001289033.1
UniProt Accession #	P29622; Q53XB5; Q86TR9; Q96BZ5
Molecular Weight	48,542 Da
NCBI Official Full Name	kallistatin isoform 2
NCBI Official Synonym Full Names	serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), member 4
NCBI Official Symbol	SERPINA4
NCBI Official Synonym Symbols	KAL; KST; PI4; KLST; PI-4; kallistatin
NCBI Protein Information	kallistatin; serpin A4; kallikrein inhibitor; peptidase inhibitor 4; protease inhibitor 4 (kallistatin); serine (or cysteine) proteinase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), member 4
UniProt Protein Name	Kallistatin
UniProt Gene Name	SERPINA4
UniProt Synonym Gene Names	KST; PI4; PI-4
UniProt Entry Name	KAIN_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/e-coli-active-protein/kallistatin-kal/161912>