

Inter Alpha-Globulin Inhibitor H4 (ITIH4) Active Protein | ITIH4 active protein

Active Inter Alpha-Globulin Inhibitor H4 (ITIH4)

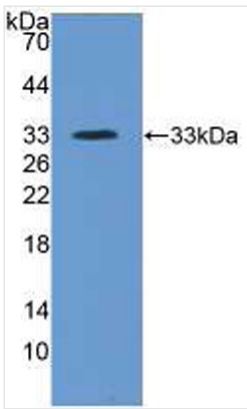
CATALOG # AAA149264	HOST E. coli	REACTIVITY Homo sapiens (Human)	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

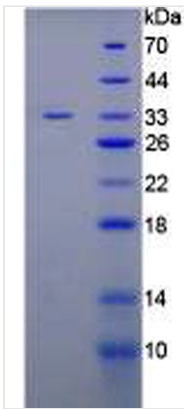
Inter Alpha-Globulin Inhibitor H4 (ITIH4); Active Inter Alpha-Globulin Inhibitor H4 (ITIH4); IHRP; PK120; H4P; ITIHL1; Plasma Kallikrein-Sensitive Glycoprotein; Plasma kallikrein sensitive glycoprotein 120; Inter-alpha-trypsin inhibitor family heavy chain-related protein; ITIH4 active protein

PRODUCT SPECIFICATIONS

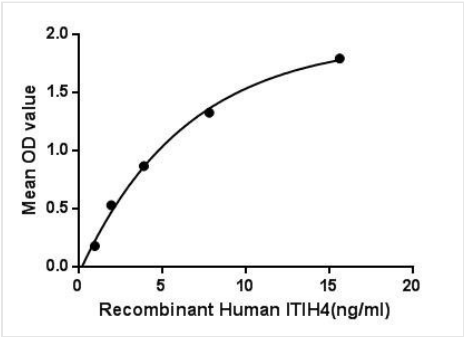
Host	E. coli
Reactivity	Homo sapiens (Human)
Purity/Purification	>98%
Form/Format	PBS, pH7.4, containing 0.01% SKL, 5% Trehalose.
Concentration	Original Concentration: 1200ug/mL (varies by lot)
Applicable Applications for ITIH4 active protein	Activity Assay, Cell Culture
Source	Prokaryotic expression.
Residues	Ala683~Val928
Tags	N-terminal His-tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method).
Predicted isoelectric point	6.9
Phenomenon explanation	The possible reasons that the actual band size differs from the predicted are as follows: 1. Splice variants: Alternative splicing may create different sized proteins from the same gene. 2. Relative charge: The composition of amino acids may affects the charge of the protein. 3. Post-translational modification: Phosphorylation, glycosylation, methylation etc. 4. Post-translation cleavage: Many proteins are synthesized as pro-proteins, and then cleaved to give the active form. 5. Polymerization of the target protein: Dimerization, multimerization etc.
Usage	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
Preparation and Storage	Storage: Avoid repeated freeze/thaw cycles. Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 degree C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.



WB (Western Blot)
Sample: Recombinant ITIH4, Human;Antibody: Rabbit Anti-Human ITIH4 Ab



SDS-PAGE
Sample: Active recombinant ITIH4, Human



AYHPFRRL AILPASAPPA
TSNPDPVAVSR VMNMKIEETT MTTQTPAPIQ APSAILPLPG QSVRLCVDP
RHRQGPVNLL SDPEQGVVET QYEREKAGF SWIEVTFKNP LVVWHASPEH
VVVTRNRRSS AYKWKETLFS VMPGLKMTMD KTGLLLLSDP DKVTIGLLFW
DGRGEGRLRL LRDTDRFSSH VGGTLGQFYQ EVLWGSPAAS DDGRRTLRLVQ
GNDHSATRER RLDYQEGPPG VEISCHSV

Sequence

Bioactivity
Inter Alpha-Globulin Inhibitor H4 (ITIH4) is secreted into the blood, where it is cleaved by plasma kallikrein into two smaller forms. ITIH4 has been detected only in liver, and it seems to be upregulated during surgical trauma. It may also play a role in liver development or regeneration. Besides, Growth Factor Receptor Bound Protein 2 (Grb2) has been identified as an interactor of ITIH4, thus a binding ELISA assay was conducted to detect the interaction of recombinant human ITIH4 and recombinant human Grb2. Briefly, ITIH4 were diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to Grb2-coated microtiter wells and incubated for 2h at 37 degree C. Wells were washed with PBST and incubated for 1h with anti-ITIH4 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 degree C. Finally, add 50uL stop solution to the wells and read at 450nm immediately. The binding activity of ITIH4 and Grb2 was shown in Figure 1, and this effect was in a dose dependent manner. The binding activity of ITIH4 with Grb2.

ADDITIONAL INFORMATION

Product Categories/Family for ITIH4 active protein	Metabolic pathway
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NCBI AND UNIPROT INFORMATION

NCBI GI #	219517748
NCBI GeneID	3700
UniProt Accession #	Q14624
Molecular Weight	Predicted Molecular Mass: 28.9kDa Accurate Molecular Mass: 33kDa as determined by SDS-PAGE reducing conditions.
NCBI Official Full Name	ITIH4 protein
NCBI Official Synonym Full Names	inter-alpha-trypsin inhibitor heavy chain family member 4

NCBI Official Symbol	ITIH4
NCBI Official Synonym Symbols	H4P; IHRP; GP120; PK120; ITIHL1; PK-120; ITI-HC4
NCBI Protein Information	inter-alpha-trypsin inhibitor heavy chain H4
UniProt Protein Name	Inter-alpha-trypsin inhibitor heavy chain H4
UniProt Gene Name	ITIH4
UniProt Synonym Gene Names	IHRP; ITIHL1; PK120; ITI heavy chain H4; ITI-HC4; Inter-alpha-inhibitor heavy chain 4; IHRP; Gp120; PK-120

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.

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Online datasheet: <https://stage.aaabiotech.com/e-coli-homo-sapiens-human-active-protein/inter-alpha-globulin-inhibitor-h4-itih4/149264>