

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

Active Inter Alpha-Globulin Inhibitor H4 (ITIH4)

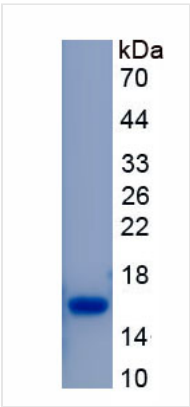
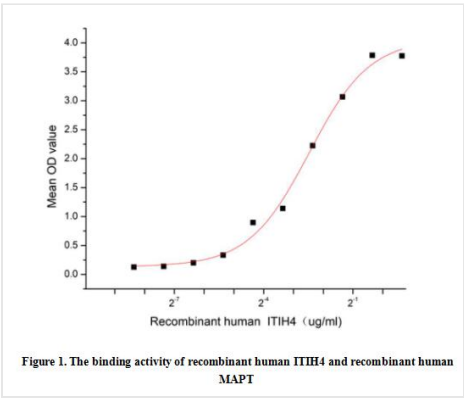
|                               |                       |                                                     |
|-------------------------------|-----------------------|-----------------------------------------------------|
| CATALOG #<br><b>AAA161928</b> | HOST<br><b>E Coli</b> | APPLICATIONS<br><b>Activity Assay, Cell Culture</b> |
|-------------------------------|-----------------------|-----------------------------------------------------|

### PRODUCT SYNONYMS

Inter Alpha-Globulin Inhibitor H4 (ITIH4); Active Inter Alpha-Globulin Inhibitor H4 (ITIH4); Inter Alpha-Globulin Inhibitor H4; IHRP; PK120; H4P; ITIHL1; Plasma Kallikrein-Sensitive Glycoprotein; Plasma kallikrein sensitive glycoprotein 120; Inter-alpha-trypsin inhibitor family heavy chain-related protein4; ITIH4 active protein

### PRODUCT SPECIFICATIONS

|                                                  |                                                                                              |
|--------------------------------------------------|----------------------------------------------------------------------------------------------|
| Host                                             | E Coli                                                                                       |
| Purity/Purification                              | Greater than 97% by SDS-PAGE                                                                 |
| Form/Format                                      | Freeze-dried powder; PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300. |
| Sequence                                         | Glu29~Tyr1 57                                                                                |
| Applicable Applications for ITIH4 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                                | 9.4                                                                                          |
| Research Area                                    | Metabolic pathway                                                                            |
| Preparation and Storage                          | Store at 2-8 degree C for one month, -80 degree C for 12 months                              |



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, Tau Protein (MAPT) 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 MAPT. Briefly, ITIH4 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to MAPT-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 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 nm immediately. The binding activity of ITIH4 and MAPT was shown in Figure 1, the EC50 for this effect is 0.18 ug/mL.

SDS-PAGE

Figure. SDS-PAGE

ADDITIONAL INFORMATION

|                                                    |                 |
|----------------------------------------------------|-----------------|
| Product Categories/Family for ITIH4 active protein | Active proteins |
|----------------------------------------------------|-----------------|

NCBI AND UNIPROT INFORMATION

|                                  |                                                                                                            |
|----------------------------------|------------------------------------------------------------------------------------------------------------|
| NCBI GI #                        | 219517748                                                                                                  |
| NCBI GeneID                      | 3700                                                                                                       |
| UniProt Accession #              | Q14624; Q15135; Q9P190; Q9UQ54; B7Z545; E9PGN5                                                             |
| Molecular Weight                 | 101,241 Da                                                                                                 |
| 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.