



# Recombinant Human Inositol-trisphosphate 3-kinase A (ITPKA)

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| <b>Product Code</b>      | CSB-EP011909HU                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Storage</b>           | Store at -20°C, for extended storage, conserve at -20°C or -80°C.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Uniprot No.</b>       | P23677                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Product Type</b>      | Recombinant Protein                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Immunogen Species</b> | Homo sapiens (Human)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Purity</b>            | ≥85% (SDS-PAGE)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Sequence</b>          | <p>MTLPGGPTGM ARPGGARPCS PGLERAPRRS VGELRLLFEA RCAAIAAAAA</p> <p>AGEPRARGAK RRGQVQPNGL PRAPPAPVIP QLTVTAEEDP VPPTSPGPPE</p> <p>RERDCLPAAG SSHLQQPRRL STSSVSSTGS SSLLEDSEDD LLSDSESRSR</p> <p>GNVQLEAGED VGQKNHWQKI RTMVNLPVIS PFKKRYAWVQ LAGHTGSFKA</p> <p>AGTSGILIKR CSEPERYCLA RLMADALRGC VPAFHGVVER DGESYLQLQD</p> <p>LLDGFDFGPCV LDCKMGVRTY LEEELTKARE RPKLRKDMYK KMLAVDPEAP</p> <p>TEEEHAQRAV TKPRYMQWRE GISSSTTLGF RIEGIKKADG SCSTDFKTR</p> <p>SREQVLRVFE EFVQGDDEVL RRYLNRLQQI RDTLEVSEFF RRHEVIGSSL</p> <p>LFVHDHCHRA GVWLIDFGKT TPLPDGQILD HRRPWEEGNR EDGYLLGLDN</p> <p>LIGILASLAE R</p>                                               |
| <b>Source</b>            | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Target Names</b>      | ITPKA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Protein Names</b>     | <p>Recommended name: Inositol-trisphosphate 3-kinase A EC= 2.7.1.127</p> <p>Alternative name(s): Inositol 1,4,5-trisphosphate 3-kinase A Short name= IP3 3-kinase A Short name= IP3K A Short name= InsP 3-kinase A</p>                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Expression Region</b> | 1-461                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Notes</b>             | Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Tag Info</b>          | Tag type will be determined during the manufacturing process.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Protein Length</b>    | Full length protein                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Target Details</b>    | <p>Regulates inositol phosphate metabolism by phosphorylation of second messenger inositol 1,4,5-trisphosphate to Ins(1,3,4,5)P<sub>4</sub>. The activity of the inositol 1,4,5-trisphosphate 3-kinase is responsible for regulating the levels of a large number of inositol polyphosphates that are important in cellular signaling. Both calcium/calmodulin and protein phosphorylation mechanisms control its activity. It is also a substrate for the cyclic AMP-dependent protein kinase, calcium/calmodulin- dependent protein kinase II, and protein kinase C in vitro. ITPKA and ITPKB are 68% identical in the C-terminus region.</p> |
| <b>Reconstitution</b>    | We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final                                                                                                                                                                                                                                                                                                                                                                                               |



concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

#### Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.

Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.