

Recombinant LATS2 (1-1088) protein

Catalog No: 82171, 82771

Expressed In: Baculovirus

Quantity: 20, 1000 µg

Source: Human

Buffer Contents: Recombinant LATS2 (1-1088) protein is supplied in 25 mM HEPES pH 7.5, 300 mM NaCl, 20% glycerol, 0.04% Triton X-100, 0.5 mM TCEP.

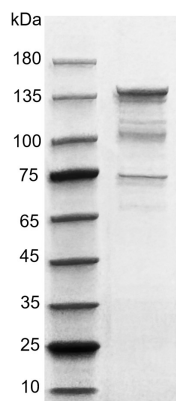
Background: Recombinant human **LATS2** (large tumor suppressor kinase 2), also known by its gene symbol LATS2 and alternative names including KPM (kinase phosphorylated during mitosis) and serine/threonine-protein kinase **LATS2**, is a core component of the Hippo signaling pathway that functions as a serine/threonine kinase to negatively regulate cell proliferation and promote apoptosis. This recombinant form, typically produced in expression systems such as E. coli or insect cells, retains the key biochemical properties of the native protein, including its N-terminal regulatory domain and C-terminal kinase domain that together mediate phosphorylation of downstream effectors, most notably the YAP1 and WWTR1/TAZ transcriptional coactivators. Upon phosphorylation by upstream kinases MST1/MST2, activated LATS2 phosphorylates YAP1 and TAZ, leading to their cytoplasmic retention through 14-3-3 protein binding and subsequent ubiquitin-mediated degradation, thereby suppressing the expression of genes involved in cell growth and survival. Beyond its canonical role in the Hippo pathway **LATS2** functions as a tumor suppressor by regulating centrosome duplication, maintaining genomic stability during mitosis, modulating the p53 tumor suppressor pathway, and responding to oncogenic stress signals to induce apoptosis through caspase activation.

Protein Details: Recombinant LATS2 (1-1088) protein that includes amino acids 1-1088 of human LATS2 protein (accession number NP_055387.2) was expressed in a baculovirus expression system, and contains an C-terminal FLAG tag. The molecular weight of the protein is 121.83 kDa.

Application Notes: This product was manufactured as described in Protein Details. Where possible, Active Motif has developed functional or activity assays for recombinant proteins. Additional characterization such as enzyme kinetic activity assays, inhibitor screening or other biological activity assays may not have been performed for every product. All available data for this product is shown.

Storage and Guarantee: Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is for research use only and is not for use in diagnostic procedures. This product is guaranteed for 6 months from date of arrival.

LATS2 (1-1088)



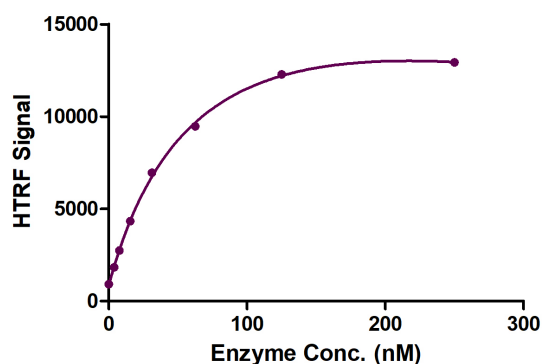
Recombinant LATS protein gel

4-20% SDS-PAGE gel

MW: 121.83 kda

Purity: >80%

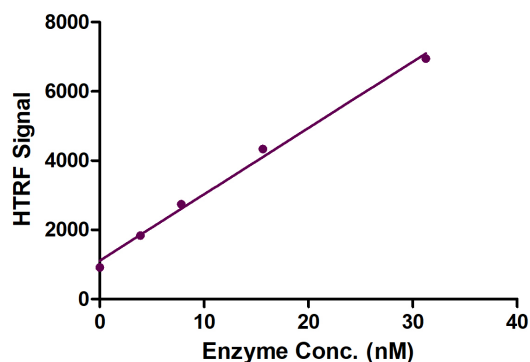
LATS2 (1-1088) Titration



HTRF assay for LATS2 (1-1088) protein activity

1 μ M STK S1 substrate was incubated with different concentrations of LATS2 (1-1088) protein in 10 μ l reaction system containing 1 $\times$ Enzymatic Buffer, 5 mM MgCl₂, 1 mM DTT and 100 μ M ATP for 1 hr. Then 10 μ l detection reagents containing anti-STK antibody and SA-XL665 (each of which was 1:100 diluted with 1 $\times$ Detection Buffer) were added and incubated with the reactions for 30 min. All the operations and reactions were performed at room temperature. HTRF KinEASE STK assay was used to detect the enzymatic activity

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