

Recombinant LATS1 protein

Catalog No: 81209

Expressed In: Baculovirus

Quantity: 20 µg

Concentration: 0.3 µg/µl

Source: Human

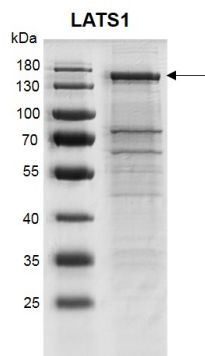
Buffer Contents: Recombinant LATS1 protein is supplied in 25 mM HEPES-NaOH pH 7.5, 300 mM NaCl, 10% glycerol, 0.04% Triton X-100, and 0.5 mM TCEP.

Background: LATS1 (Large Tumor Suppressor Kinase 1) is a putative serine/threonine kinase that localizes to the mitotic apparatus and complexes with cell cycle controller CDC2 kinase in early mitosis. It is phosphorylated in a cell-cycle dependent manner, with late prophase phosphorylation remaining through metaphase. The N-terminal region of LATS1 binds CDC2 to form a complex showing reduced H1 histone kinase activity, indicating a role as a negative regulator of CDC2/cyclin A. In addition, the C-terminal of it domain binds to its own N-terminal region, suggesting potential negative regulation through interference with complex formation via intramolecular binding. Biochemical and genetic data suggest that LATS1 play a significant role as a tumor suppressor which is supported by studies in knockout mice showing development of soft-tissue sarcomas, ovarian stromal cell tumors and a high sensitivity to carcinogenic treatments.

Protein Details: Recombinant LATS1 protein was expressed in a baculovirus expression system as the full length human protein (accession number NP_004681.1) with an N-terminal FLAG tag. The molecular weight of the protein is 128.1 kDa.

Application Notes: Recombinant LATS1 protein is suitable for use in enzyme kinetics, inhibitor screening, and selectivity profiling.

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.

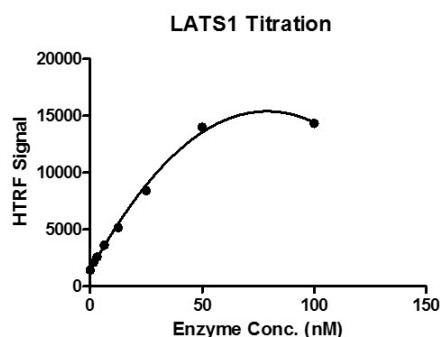


Recombinant LATS1 protein gel

10% SDS-PAGE gel with Coomassie blue staining

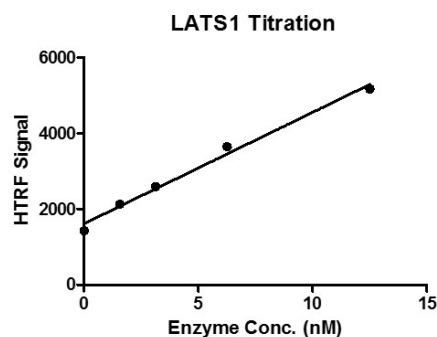
MW: 128.1 kDa

Purity: >73%



HTRF assay for LATS1 protein activity

1 μ M STK S1 substrate was incubated with different concentrations of LATS1 protein in a 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 TK 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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