

Anti-HSC70 Interacting Protein HIP/ST13 Antibody

Catalog Number: PA1935

About ST13

ST13 (Suppression of Tumorigenicity 13), also known as P48 or HIP, is a protein that in humans is encoded by the ST13 gene. ST13 is an abundant, highly conserved protein that binds the major cytosolic chaperones heat-shock protein 70-kD (HSP70) and HSP90 during an intermediate stage of steroid receptor assembly, but is absent from the mature receptor complex. Zhang et al. (1998) mapped the ST13 gene to chromosome 22q13 by fluorescence in situ hybridization. They noted that colorectal, breast, and ovarian carcinomas frequently show loss of heterozygosity at this site. Using a yeast 2-hybrid assay, Hohfeld et al. (1995) showed that rat Hip bound Hsc70 (HSPA8). One Hip oligomer bound the ATPase domains of at least 2 Hsc70 molecules, and binding was dependent on activation of the Hsc70 ATPase by Hsp40 (DNAJB1). Hip stabilized the ADP-bound form of Hsc70, which had a high affinity for a test protein substrate. Hohfeld et al. (1995) concluded that HIP contributes to interactions of HSC70 with target proteins through its own chaperone activity.

Overview

Product Name	Anti-HSC70 Interacting Protein HIP/ST13 Antibody
Reactive Species	Human
Description	Boster Bio Anti-HSC70 Interacting Protein HIP/ST13 Antibody catalog # PA1935. Tested in IF, ICC, WB applications. This antibody reacts with Human.
Application	IF, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na2HPO4.
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P50502

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human ST13, different from the related rat and mouse sequences by two amino acids.
Predicted Reactive Species	Hamster
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for ICC.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG

Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.1-0.5ug/ml, Human</p> <p>Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human</p>

Anti-HSC70 Interacting Protein HIP/ST13 Antibody (PA1935) Images

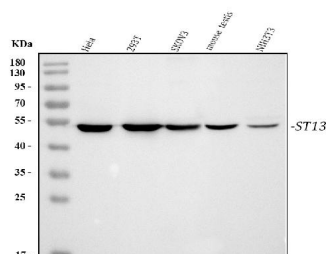


Figure 1. Western blot analysis of ST13 using anti-ST13 antibody (PA1935).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human Hela whole cell lysates,
Lane 2: human 293T whole cell lysates,
Lane 3: human SKOV3 whole cell lysates,
Lane 4: mouse testis tissue lysates,
Lane 5: mouse NIH/3T3 whole cell lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-ST13 antigen affinity purified polyclonal antibody (Catalog # PA1935) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for ST13 at approximately 45-54 kDa. The expected band size for ST13 is at 41 kDa.

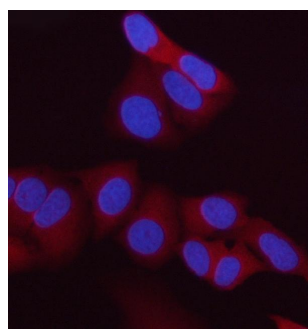


Figure 2. IF analysis of ST13 using anti-ST13 antibody (PA1935).

ST13 was detected in an immunocytochemical section of Hela cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-ST13 Antibody (PA1935) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

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