

Anti-HMGCS1 Antibody (Monoclonal, 34H63)

Catalog Number: M05313

About HMGCS1

In molecular biology, hydroxymethylglutaryl-CoA synthase or HMG-CoA synthase EC 2.3.3.10 is an enzyme which catalyzes the reaction in which acetyl-CoA condenses with acetoacetyl-CoA to form 3-hydroxy-3-methylglutaryl-CoA (HMG-CoA). Cytoplasmic 3-hydroxy-3-methylglutaryl-CoA synthase (HMGCS1) catalyzes the first committed step of mevalonate pathway essential for cholesterol biosynthesis. HMGCS1 transcription is regulated by sterol levels. Studies showed that miR-223 reduces cholesterol biosynthesis by inhibiting HMGCS1 and methylsterol monooxygenase 1. In addition, activation of the EGFR family member ERBB4 induces the expression of SREBP-regulated genes (including HMGCS1) involved in cholesterol biosynthesis, suggesting a role of this enzyme in the metabolic re-programming in ERBB4-driven cancers.

Overview

Product Name	Anti-HMGCS1 Antibody (Monoclonal, 34H63)
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-HMGCS1 Antibody (Monoclonal, 34H63) catalog # M05313. Tested in WB, IHC, IF, IP applications. This antibody reacts with Human, Mouse, Rat.
Application	IP, IF, IHC, WB
Clonality	Monoclonal 34H63
Formulation	Rabbit IgG in stabilizing components, phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q01581

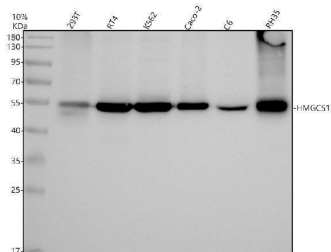
Technical Details

Immunogen	Recombinant protein within human HMGCS1 aa 423-518.
Form	Liquid
Concentration	500 ug/ml
Purification	Protein A affinity purified.

Suggested Dilutions

Western blot, 1:500-2000
Immunohistochemistry, 1:50-200
Immunofluorescence, 1:50-200
ImmunoPrecipitation, 1:50

Anti-HMGCS1 Antibody (Monoclonal, 34H63) (M05313) Images



Western blot analysis of HMGCS1 using anti-HMGCS1 antibody (M05313). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human 293T whole cell lysates, Lane 2: human RT4 whole cell lysates, Lane 3: human K562 whole cell lysates, Lane 4: human Caco-2 whole cell lysates, Lane 5: rat C6 whole cell lysates, Lane 6: rat RH35 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-HMGCS1 antigen affinity purified monoclonal antibody (M05313) at 1:500 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 ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for HMGCS1 at approximately 57 kDa. The expected band size for HMGCS1 is at 57 kDa.

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