

cytoglobin (H-16): sc-34598

BACKGROUND

Hemoglobin, myoglobin, neuroglobin, and cytoglobin belong to the globin family, porphyrin-containing proteins that function in oxygen transport and storage. Myoglobin contributes to intracellular oxygen storage and transcellular facilitated diffusion of oxygen in skeletal and cardiac muscle. Neuroglobin is an oxidative stress-responsive sensor for signal transduction in the brain. Hemoglobin contributes to oxygen storage and diffusion of oxygen in blood tissue. cytoglobin (also designated histoglobulin or STAP), is a ubiquitous protein that facilitates diffusion of oxygen through tissues and acts as a scavenger for nitric oxide or other reactive oxygen species. It binds O₂ via its heme and also has a protective function during oxidative stress. cytoglobin, a hexacoordinate hemoglobin, shares less than 30% identity with other human hemoglobins and is widely expressed in a wide array of tissues including fibroblasts and nerve cell populations.

CHROMOSOMAL LOCATION

Genetic locus: CYGB (human) mapping to 17q25.1; Cygb (mouse) mapping to 11 E2.

SOURCE

cytoglobin (H-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of cytoglobin of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-34598 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

cytoglobin (H-16) is recommended for detection of cytoglobin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

cytoglobin (H-16) is also recommended for detection of cytoglobin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for cytoglobin siRNA (h): sc-45547, cytoglobin siRNA (m): sc-45548, cytoglobin shRNA Plasmid (h): sc-45547-SH, cytoglobin shRNA Plasmid (m): sc-45548-SH, cytoglobin shRNA (h) Lentiviral Particles: sc-45547-V and cytoglobin shRNA (m) Lentiviral Particles: sc-45548-V.

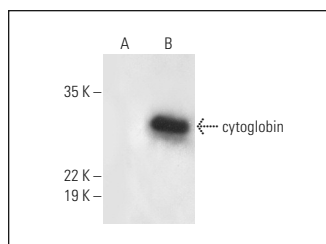
Molecular Weight of cytoglobin: 21 kDa.

Positive Controls: cytoglobin (m): 293T Lysate: sc-125209, Y79 cell lysate: sc-2240 or U-87 MG cell lysate: sc-2411.

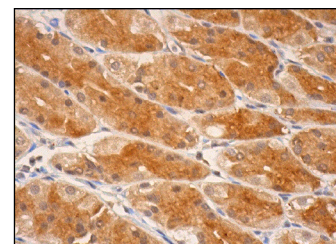
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



cytoglobin (H-16): sc-34598. Western blot analysis of cytoglobin expression in non-transfected: sc-117752 (A) and mouse cytoglobin transfected: sc-125209 (B) 293T whole cell lysates.



cytoglobin (H-16): sc-34598. Immunoperoxidase staining of formalin fixed, paraffin-embedded human upper stomach tissue showing cytoplasmic and faint nuclear staining of glandular cells.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **cytoglobin (D-7): sc-365246** or **cytoglobin (G-2): sc-365247**, our highly recommended monoclonal alternatives to cytoglobin (H-16).