SANTA CRUZ BIOTECHNOLOGY, INC.

# cytoglobin (h): 293T Lysate: sc-114314

## 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 histoglobin 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 $O_2$ 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.

## REFERENCES


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## CHROMOSOMAL LOCATION

Genetic locus: CYGB (human) mapping to 17q25.1.

## PRODUCT

cytoglobin (h): 293T Lysate represents a lysate of human cytoglobin transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## APPLICATIONS

cytoglobin (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive cytoglobin antibodies. Recommended use: 10-20 µl per lane.

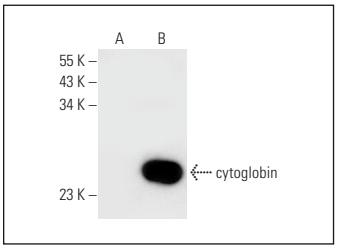
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

cytoglobin (D-7): sc-365246 is recommended as a positive control antibody for Western Blot analysis of enhanced human cytoglobin expression in cytoglobin transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

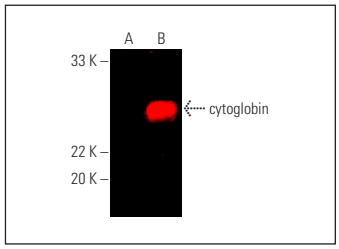
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

## DATA




cytoglobin (D-7): sc-365246. Western blot analysis of cytoglobin expression in non-transfected: sc-117752 (**A**) and human cytoglobin transfected: sc-114314 (**B**) 293T whole cell lysates.




cytoglobin (D-7): sc-365246. Near-Infrared western blot analysis of cytoglobin expression in non-transfected: sc-117752 (**A**) and human cytoglobin transfected: sc-114314 (**B**) 293T whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 790: sc-516181.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## RESEARCH USE

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