

Hemoglobin ζ (H-41): sc-292271

BACKGROUND

Hemoglobin (Hgb) is coupled to four iron-binding, methene-linked tetrapyrrole rings (heme). The α (16p13.3; 5'- ζ -pseudo ζ -pseudo α 2-pseudo α 1- α 2- α 1- θ 1-3') and β (11p15.5) globin loci determine the basic hemoglobin structure. The globin portion of hemoglobin consists of two α chains and two β chains arranged in pairs forming a tetramer. Each of the four globin chains covalently associates with a heme group. The bonds between α and β chains are weaker than between similar globin chains, thereby forming a cleavage plane that is important for oxygen binding and release. High affinity for oxygen occurs upon relaxation of the α 1- β 2 cleavage plane. When the two α 1- β 2 interfaces are closely bound, hemoglobin has a low affinity for oxygen. Hb A, which contains two α chains plus two β chains, comprises 97% of total circulating hemoglobin. The remaining 3% of total circulating hemoglobin is comprised of Hb A-2, which consists of two α chains plus two δ chains, and fetal hemoglobin (Hb F), which consists of two α chains together with two γ chains.

CHROMOSOMAL LOCATION

Genetic locus: HBZ (human) mapping to 16p13.3; Hba-x (mouse) mapping to 11 A4.

SOURCE

Hemoglobin ζ (H-41) is a rabbit polyclonal antibody raised against amino acids 55-95 mapping within an internal region of Hemoglobin ζ of human origin.

PRODUCT

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

RESEARCH USE

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

APPLICATIONS

Hemoglobin ζ (H-41) is recommended for detection of Hemoglobin ζ of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Hemoglobin ζ (H-41) is also recommended for detection of Hemoglobin ζ in additional species, including equine and bovine.

Suitable for use as control antibody for Hemoglobin ζ siRNA (h): sc-105449, Hemoglobin ζ siRNA (m): sc-155905, Hemoglobin ζ shRNA Plasmid (h): sc-105449-SH, Hemoglobin ζ shRNA Plasmid (m): sc-155905-SH, Hemoglobin ζ shRNA (h) Lentiviral Particles: sc-105449-V and Hemoglobin ζ shRNA (m) Lentiviral Particles: sc-155905-V.

Molecular Weight (predicted) of Hemoglobin ζ : 16 kDa.

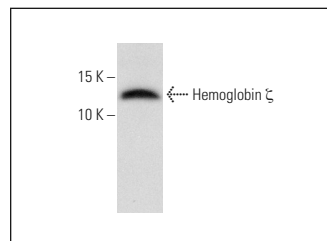
Molecular Weight (observed) of Hemoglobin ζ : 12 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Hemoglobin ζ (H-41): sc-292271. Western blot analysis of Hemoglobin ζ expression in K-562 whole cell lysate.

STORAGE

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

PROTOCOLS

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


 MONOS
Satisfaction
Guaranteed

Try **Hemoglobin ζ (C-1B3): sc-101272**, our highly recommended monoclonal alternative to Hemoglobin ζ (H-41).