

# HYI (D-14): sc-164626

## BACKGROUND

Chromosome 1 is the largest human chromosome, spanning about 260 million base pairs and making up 8% of the human genome. Several disorders, including Stickler syndrome, Parkinsons, Gaucher disease, malignant melanoma and Usher syndrome, are caused by defects in the genes that localize to chromosome 1. HYI (hydroxypyruvate isomerase), also known as HT036 or SB156, is a 277 amino acid homolog of the *E. coli* hyi protein and is encoded by a gene that is located on chromosome 1. Functioning as an isomerase that enzymatically interconverts ketoses and aldoses, HYI catalyzes the reversible conversion of hydroxypyruvate to 2-hydroxy-3-oxopropanoate, a reaction that is inhibited by copper and iron. HYI is expressed as four isoforms due to alternative splicing events.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: HYI (human) mapping to 1p34.2; Hyi (mouse) mapping to 4 D2.1.

## SOURCE

HYI (D-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HYI 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-164626 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

HYI (D-14) is recommended for detection of HYI of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

HYI (D-14) is also recommended for detection of HYI in additional species, including equine, canine and porcine.

Suitable for use as control antibody for HYI siRNA (h): sc-78666, HYI siRNA (m): sc-146120, HYI shRNA Plasmid (h): sc-78666-SH, HYI shRNA Plasmid (m): sc-146120-SH, HYI shRNA (h) Lentiviral Particles: sc-78666-V and HYI shRNA (m) Lentiviral Particles: sc-146120-V.

Molecular Weight of HYI: 30 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209.

## 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) 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.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **HYI (R-11): sc-100494**, our highly recommended monoclonal alternative to HYI (D-14).