

## DERA (G-12): sc-107518

### BACKGROUND

DERA (deoxyriboaldolase), also known as DEOC or CGI-26, is a 318 amino acid member of the deoC/fbaB aldolase protein family. Involved in the carbohydrate degradation pathway, DERA catalyzes the conversion of 2-deoxy-D-ribose 5-phosphate to D-glyceraldehyde 3-phosphate and an acetylaldehyde. The gene that encodes DERA maps to human chromosome 12, which encodes over 1,100 genes within 132 million bases, making up about 4.5% of the human genome. A number of skeletal deformities are linked to chromosome 12, including hypochondrogenesis, achondrogenesis and Kniest dysplasia. Noonan syndrome, which includes heart and facial developmental defects among the primary symptoms, is caused by a mutant form of PTPN11 gene product, SH-PTP2. Chromosome 12 is also home to a homeobox gene cluster, which encodes crucial transcription factors for morphogenesis, and the natural killer complex gene cluster encoding C-type lectin proteins which mediate the NK cell response to MHC I interaction. Trisomy 12p leads to facial development defects, seizure disorders and a host of other symptoms varying in severity depending on the extent of mosaicism and is most severe in cases of complete trisomy.

### REFERENCES

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### CHROMOSOMAL LOCATION

Genetic locus: DERA (human) mapping to 12p12.3; Dera (mouse) mapping to 6 G1.

### SOURCE

DERA (G-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of DERA 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-107518 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

DERA (G-12) is recommended for detection of DERA 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).

DERA (G-12) is also recommended for detection of DERA in additional species, including equine.

Suitable for use as control antibody for DERA siRNA (h): sc-96129, DERA siRNA (m): sc-143011, DERA shRNA Plasmid (h): sc-96129-SH, DERA shRNA Plasmid (m): sc-143011-SH, DERA shRNA (h) Lentiviral Particles: sc-96129-V and DERA shRNA (m) Lentiviral Particles: sc-143011-V.

Molecular Weight of DERA: 35 kDa.

### 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.