**BACKGROUND**

Members of the Id family of basic helix-loop-helix (bHLH) proteins include Id1, Id2, Id3 and Id4. They are ubiquitously expressed and dimerize with members of the class A and B HLH proteins. Due to the absence of the basic region, the resulting heterodimers cannot bind DNA. The Id-type proteins thus appear to negatively regulate DNA binding of bHLH proteins. Since Id1 inhibits DNA binding of E12 and Myo D, it apparently functions to inhibit muscle-specific gene expression. Under conditions that facilitate muscle cell differentiation, the Id protein levels fall, allowing E12 and/or E47 to form heterodimers with Myo D and myogenin, which in turn activate myogenic differentiation. It has been shown that expression of each of the Id proteins is strongly dependent on growth factor activation and that reduction of Id mRNA levels by antisense oligonucleotides leads to a delayed reentry of arrested cells into the cell cycle following growth factor stimulation.

**CHROMOSOMAL LOCATION**

Genetic locus: ID1 (human) mapping to 20q11.21; Id1 (mouse) mapping to 2 H1.

**SOURCE**

Id1 (C-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of Id1 of mouse origin.

**PRODUCT**

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-488 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-488 X, 200 µg/0.1 ml.

**APPLICATIONS**

Id1 (C-20) is recommended for detection of Id1 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).

Id1 (C-20) is also recommended for detection of Id1 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for Id1 siRNA (h): sc-29356, Id1 siRNA (m): sc-35632, Id1 shRNA Plasmid (h): sc-29356-SH, Id1 shRNA Plasmid (m): sc-35632-SH, Id1 shRNA (h) Lentiviral Particles: sc-29356-V and Id1 shRNA (m) Lentiviral Particles: sc-35632-V.

Id1 (C-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Id1: 15 kDa.

Positive Controls: Id1 (h): 293 Lysate: sc-113028, Ramos cell lysate: sc-2216 or PC-12 + NGF cell lysate: sc-3808.

**RESEARCH USE**

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

**STORAGE**

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

**DATA**


**SELECT PRODUCT CITATIONS**


