
anti-Id 1

Cat #: HM1181
Rabbit polyclonal IgG
0.2 µg/µl, store at 4 °C

For research use only

BACKGROUND

Members of the Id family of basic helix-loop-helix (bHLH) proteins include Id1, Id2, Id3 and Id4. They lack the basic region, and cannot bind DNA directly. They can form heterodimers with other members of the basic HLH transcription factors and inhibit their DNA binding activities. Id proteins are ubiquitously expressed. They are expressed highly in heart, lung and kidney, and have lower expression in brain and liver. 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.

SPECIFICITY

This antibody reacts with Id 1 from human, rat and mouse origin.

It can be used in Western blotting, immunoprecipitation and immunohistochemistry; non cross-reactive with Id2, Id3 or Id4.

Molecular weight of Id1: 15 kDa. Western blotting positive control: HeLa.

IMMUNOGEN

Full-length recombinant human Id1 protein.

STORAGE

This antibody is stable for 12 months when stored at 2-8°C.

REFERENCE

1. Benezra, R., Davis, R.L., Lockshon, D., Turner, D.L., and Weintraub, H. 1990. The protein Id: a negative regulator of helix-loop-helix DNA binding proteins. *Cell* 61: 49-59.
2. Christy, B.A., Sanders, L.K., Lau, L.F., Copeland, N. G., Jenkins, N.A., and Nathans, D. 1991. An Id-related helix-loop helix protein encoded by a growth factor-inducible gene. *Proc. Natl. Acad. Sci. USA* 88: 1815-1819.
3. Sun, X., Copeland, N.G., Jenkins, N.A., and Baltimore, D. 1991. Id proteins Id1 and Id2 selectively inhibit DNA binding by one class of helix-loop-helix proteins. *Mol. Cell. Biol.* 11: 5603-5611.
4. Riechmann, V., van Crüchten, I., and Sablitzky, F. 1994. The expression pattern of *Id4*, a novel dominant negative helix-loop-helix protein, is distinct from *Id1*, *Id2* and *Id3*. *Nucl. Acids Res.* 22: 749-755.
5. Barone, M.V., Pepperkok, R., Peverali, F.A., and Philipson, L. 1994. Id proteins control growth induction in mammalian cells. *Proc. Natl. Acad. Sci. USA* 91: 4985-4988.
6. Hara, E., Yamaguchi, T., Nojima, H., Ide, T., Campisi, J., Okayama, H., and Oda, K. 1994. Id-related genes encoding helix-loop-helix proteins are required for G1 progression and are repressed in senescent human fibroblasts. *J. Biol. Chem.* 269: 2139-2145.

7. Ohtani, N., Zebedee, Z., Huot, T.J., Stinson, J.A., Sugimoto, M., Ohashi, Y., Sharrocks, A.D., Peters, G. and Hara, E. (2001) Opposing effects of Ets and Id proteins on p16INK4a expression during cellular senescence. *Nature* 409, 1067-1070.
8. Singh, J., Murata, K., Itahana, Y. and Desprez, P.Y. (2002) Constitutive expression of the Id-1 promoter in human metastatic breast cancer cells is linked with the loss of NF-1/Rb/HDAC-1 transcription repressor complex. *Oncogene* 21, 1812-1822.
9. Hasskarl, J., Duensing, S., Manuel, E. and Munger, K. (2004) The helix-loop-helix protein ID1 localizes to centrosomes and rapidly induces abnormal centrosome numbers. *Oncogene* 23, 1930-1938.

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