

# ACTR5 (G-20): sc-85261

## BACKGROUND

ACTR5 (actin-related protein 5), also known as ARP5 or INO80M, is a 607 amino acid protein that belongs to the actin family. Functioning as a component of the INO80 chromatin remodeling complex, ACTR5 interacts with a variety of other actin-related proteins and, via these interactions, is thought to be involved in transcriptional regulation events. The gene encoding ACTR5 maps to chromosome 20. Comprising approximately 2% of the human genome, chromosome 20 contains nearly 63 million bases that encode over 600 genes, some of which are associated with Creutzfeldt-Jakob disease, amyotrophic lateral sclerosis, spinal muscular atrophy, ring chromosome 20 epilepsy syndrome and Alagille syndrome.

## REFERENCES

- Collins, S., McLean, C.A. and Masters, C.L. 2001. Gerstmann-Sträussler-Scheinker syndrome, fatal familial insomnia and kuru: a review of these less common human transmissible spongiform encephalopathies. *J. Clin. Neurosci.* 8: 387-397.
- Shen, X., Ranallo, R., Choi, E. and Wu, C. 2003. Involvement of actin-related proteins in ATP-dependent chromatin remodeling. *Mol. Cell* 12: 147-155.
- van Attikum, H., Fritsch, O., Hohn, B. and Gasser, S.M. 2004. Recruitment of the INO80 complex by H2A phosphorylation links ATP-dependent chromatin remodeling with DNA double-strand break repair. *Cell* 119: 777-788.
- Jin, J., Cai, Y., Yao, T., Gottschalk, A.J., Florens, L., Swanson, S.K., Gutiérrez, J.L., Coleman, M.K., Workman, J.L., Mushegian, A., Washburn, M.P., Conaway, R.C. and Conaway, J.W. 2005. A mammalian chromatin remodeling complex with similarities to the yeast INO80 complex. *J. Biol. Chem.* 280: 41207-41212.
- Ville, D., Kaminska, A., Bahi-Buisson, N., Biraben, A., Plouin, P., Telvi, L., Dulac, O. and Chiron, C. 2006. Early pattern of epilepsy in the ring chromosome 20 syndrome. *Epilepsia* 47: 543-549.

## CHROMOSOMAL LOCATION

Genetic locus: ACTR5 (human) mapping to 20q11.23; Actr5 (mouse) mapping to 2 H1.

## SOURCE

ACTR5 (G-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of ACTR5 of human 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-85261 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

ACTR5 (G-20) is recommended for detection of ACTR5 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ACTR5 (G-20) is also recommended for detection of ACTR5 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ACTR5 siRNA (h): sc-72442, ACTR5 siRNA (m): sc-140847, ACTR5 shRNA Plasmid (h): sc-72442-SH, ACTR5 shRNA Plasmid (m): sc-140847-SH, ACTR5 shRNA (h) Lentiviral Particles: sc-72442-V and ACTR5 shRNA (m) Lentiviral Particles: sc-140847-V.

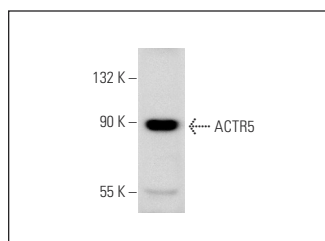
Molecular Weight of ACTR5: 68 kDa.

Positive Controls: Saos-2 cell lysate: sc-2235.

## 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



ACTR5 (G-20): sc-85261. Western blot analysis of ACTR5 expression in Saos-2 whole cell lysate.

## RESEARCH USE

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

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Try **ACTR5 (F-12): sc-376364** or **ACTR5 (D-10): sc-515343**, our highly recommended monoclonal alternatives to ACTR5 (G-20).