



Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

Store at -20C
#8486

RUNX2 (D1H7) Rabbit mAb

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP, ChIP	H M R Mk	Endogenous	55-62	Rabbit IgG	#Q13950	860

Product Usage Information

For optimal ChIP results, use 5 µl of antibody and 10 µg of chromatin (approximately 4 x 10⁶ cells) per IP. This antibody has been validated using SimpleChIP[®] Enzymatic Chromatin IP Kits.

Application

Western Blotting
Immunoprecipitation
Chromatin IP

Dilution

1:1000
1:50
1:100

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

RUNX2 (D1H7) Rabbit mAb recognizes endogenous levels of total RUNX2 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Arg267 of human RUNX2 protein.

Background

RUNX2 is a member of the RUNX family of transcription factors. It is involved in osteoblast differentiation and skeletal morphogenesis. RUNX2 regulates the transcription of various genes including osteopontin, bone sialoprotein, and osteocalcin via binding to the core site of the enhancers or promoters (1-3). RUNX2 is crucial for the maturation of osteoblasts and both intramembranous and endochondral ossification. Mutations in RUNX2 have been associated with the bone development disorder cleidocranial dysplasia (CCD) (4-6). RUNX2 is also abnormally expressed in various human cancers including prostate cancer and breast cancer. It plays an important role in migration, invasion, and bone metastasis of prostate and breast cancer cells (7-10).

Background References

- Viereck, V. et al. (2002) *J Cell Biochem* 86, 348-56.
- Willis, D.M. et al. (2002) *J Biol Chem* 277, 37280-91.
- Tu, Q. et al. (2008) *J Cell Physiol* 217, 40-7.
- Quack, I. et al. (1999) *Am J Hum Genet* 65, 1268-78.
- Cardoso, B.M. et al. (2010) *Clin Dysmorphol* 19, 150-2.
- Han, M.S. et al. (2010) *J Cell Biochem* 110, 97-103.
- Akech, J. et al. (2010) *Oncogene* 29, 811-21.
- van der Deen, M. et al. (2010) *J Cell Biochem* 109, 828-37.
- Barnes, G.L. et al. (2003) *Cancer Res* 63, 2631-7.
- Barnes, G.L. et al. (2004) *Cancer Res* 64, 4506-13.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween[®] 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation **ChIP:** Chromatin IP

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Mk:** Monkey

Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's

terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.