

Brn2/POU3F2 (D2C1L) Rabbit mAb

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

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

Applications: W, IP, IF-F, ChIP, ChIP-seq, C&R, C&T	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 55	Source/Isotype: Rabbit IgG	UniProt ID: #P20265	Entrez-Gene Id: 5454
--	-----------------------------	-----------------------------------	------------------------	--------------------------------------	-------------------------------	--------------------------------

Product Usage Information

For optimal ChIP and ChIP-seq results, use 10 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.

The CUT&RUN dilution was determined using CUT&RUN Assay Kit #86652.

The CUT&Tag dilution was determined using CUT&Tag Assay Kit #77552.

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:100
Immunofluorescence (Frozen)	1:1600 - 1:3200
Chromatin IP	1:50
Chromatin IP-seq	1:50
CUT&RUN	1:50
CUT&Tag	1:50

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.

For a carrier free (BSA and azide free) version of this product see product #35173.

Specificity/Sensitivity

Brn2/POU3F2 (D2C1L) Rabbit mAb recognizes endogenous levels of total Brn2/POU3F2 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human Brn2/POU3F2 protein.

Background

Brn2/POU3F2 is a POU domain-containing transcription factor involved in neuronal differentiation and activation of the corticotrophin-releasing hormone gene (1,2). In mice, disruption of the Brn2 gene results in loss of specific neuronal lineages in the hypothalamus (3). In addition to its role in mammalian neurogenesis, Brn2 has also been implicated in melanoma tumorigenesis and has been shown in the literature to be overexpressed in human melanoma cells compared to normal melanocytes (4,5). Recent studies also identify Brn2 as a transcription factor playing an important role in keratinocyte differentiation (6). Recent reports demonstrate that overexpression of three transcription factors (Brn2, Ascl1, and Myt1L) can directly convert human fibroblasts into functional neurons under precisely defined conditions (7,8).

Background References

- Fujii, H. and Hamada, H. (1993) *Neuron* 11, 1197-206.
- Schonemann, M.D. et al. (1995) *Genes Dev* 9, 3122-35.
- Nakai, S. et al. (1995) *Genes Dev* 9, 3109-21.
- Cook, A.L. et al. (2003) *J Invest Dermatol* 121, 1150-9.
- Cook, A.L. and Sturm, R.A. (2008) *Pigment Cell Melanoma Res* 21, 611-26.
- Shi, G. et al. (2010) *PLoS One* 5, e13216.
- Pfisterer, U. et al. (2011) *Proc Natl Acad Sci USA* 108, 10343-8.
- Ambasudhan, R. et al. (2011) *Cell Stem Cell* 9, 113-8.

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 BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation **IF-F:** Immunofluorescence (Frozen) **ChIP:** Chromatin IP
ChIP-seq: Chromatin IP-seq **C&R:** CUT&RUN **C&T:** CUT&Tag

Cross-Reactivity Key

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

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.