Revision 1

Store at -20C

#3909

UTF1 Antibody

Cell Signaling TECHNOLOGY®

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:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	M R	Endogenous	40	Rabbit	#Q5T230	8433

Product Usage Information

Application	Dilution
Western Blotting	1:1000

Storage

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

Specificity/Sensitivity

UTF1 Antibody detects endogenous levels of total UTF1 protein.

Species predicted to react based on 100% sequence homology

Human

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide correponding to amino acid sequence near the C-terminus of human UTF1. Antibodies are purified by Protein A and peptide affinity chromatography.

Background

Undifferentiated embryonic cell transcription factor 1 (UTF1) is expressed in cells of the inner cell mass and the epiblast (1). Expression is down-regulated with development, although it is maintained in the embryonic germ cells and in the adult gonads (1). Reduced expression in embryonic stem cells (ESCs) is associated with failure to differentiate properly, although self-renewal is unaffected (2). UTF1 is tightly associated with chromatin in mouse and human ESCs and may be involved in maintaining an epigenetic environment necessary for the pluripotent state (2,3). Co-expression of UTF1 with reprogramming factors c-Myc, Oct-4, Sox2 and KLF4, along with siRNA knock-down of p53 increased efficiency of induced pluripotent stem cell generation by 100 fold (4).

Background References

1. Okuda, A. et al. (1998) *EMBO J* 17, 2019-32.
2. van den Boom, V. et al. (2007) *J Cell Biol* 178, 913-24.
3. Kooistra, S.M. et al. (2009) *Stem Cell Res* 2, 211-8.
4. Zhao, Y. et al. (2008) *Cell Stem Cell* 3, 475-9.

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

Cross-Reactivity Key

M: Mouse **R:** Rat

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