

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human Oct-3/4 in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Oct-3/4 Met1-Asn265 (Met262Leu) Accession # Q01860
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Chromatin Immunoprecipitation (ChIP)	Optimal dilution of this antibody should be experimentally determined.
Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.
Immunoprecipitation	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Oct-3/4, a member of POU transcription factors, was identified as a DNA-binding protein that activates gene transcription via a cis-element containing an octamer motif (1). It is expressed in totipotent embryonic stem and germ cells (2, 3). A critical amount of Oct-3/4 expressed is required to sustain stem cell self-renewal and pluripotency (4). When embryonic stem cells are induced to differentiate, Oct-3/4 is downregulated and this downregulation of Oct-3/4 has proven to be essential for proper and divergent developmental program (5). The Oct-3/4 molecule is not only a master regulator of pluripotency that controls the lineage commitment but also is the most recognized marker used for the identification of totipotent embryonic stem cells.

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