

CA1029	<b>POU5F1 (Oct4)</b>	
	<b>Recombinant Protein (AA 1-212)</b>	
	<b>Prod. No. S2105-20UG</b>	Orders      866 372-7442 & Support    support@primorigen.com
	For Research Use Only Not intended for use in humans or animals	Web            www.primorigen.com

<b>Source</b>	Human
<b>Tested Applications</b>	SDS-PAGE, WB, ELISA, Dot
<b>Sequence</b>	Amino acids 1-212
<b>Epitope tag(s)</b>	none

<b>Size:</b> 20 µg
<b>Description:</b> Recombinant human POU5F1 (Oct4) protein fragment (AA 1-212).
<b>Expression:</b> Protein was expressed in <i>E. coli</i> and refolded to soluble form.
<b>Formulation:</b> 300 µg/ml (determined by A280) in hs-PBS (1.5 mM KH <sub>2</sub> PO <sub>4</sub> , 8.1 mM Na <sub>2</sub> HPO <sub>4</sub> , 500 mM NaCl, 2.7 mM KCl, pH 7.4) + 5% glycerol Preservative: none
<b>Purity:</b> >90% by SDS-PAGE
<b>Storage:</b> Store at -80 °C. Avoid multiple freeze-thaws.
<b>Alternative Names:</b> POU domain, class 5, transcription factor 1; Octamer-binding protein 4; Oct-4; Oct-3; Oct-3/4; OTF-3
<b>Size:</b> 23 kDa (AA 1-212). Full length POU5F1 = 38.6 kDa (AA 1-360)
<b>Database Links:</b> RefSeq Protein NP_002692.2 RefSeq Gene NM_002701.4 UniProt Q01860

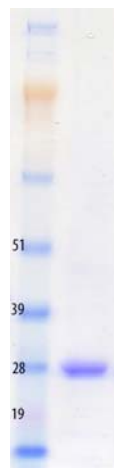
**Background:** POU5F1, commonly known as Octamer-binding protein 4 (Oct4), is a POU transcription factor family member that is critical for maintaining embryonic stem (ES) cell pluripotency and preventing differentiation to germ layers and mature cell lineages. For this reason, POU5F1 expression is frequently used as a marker for undifferentiated stem cells. It contains a POU-specific domain and a homeobox DNA-binding domain. When transfected together with other key pluripotent transcription factors, POU5F1 has been used to reprogram somatic cells into induced pluripotent stem (iPS) cells.

### Applications:

- (A) POU5F1 (Oct4) recombinant protein (AA 1-212) (5 µg) was resolved by SDS-PAGE and stained with Coomassie dye. POU5F1 has been shown to run at an apparent molecular weight higher than predicted.
- (B) Western blot detection of POU5F1 (Oct4) recombinant protein (AA 1-212) (50 ng) using 0.1 µg/ml POU5F1 monoclonal antibody (PR-1A6).
- (C) Indirect ELISA detection of immobilized POU5F1 (Oct4) recombinant protein (AA 1-212) with titrated amounts of POU5F1 mAb (PR-1A6).

*Note: Representative data are shown (not Lot-specific).*

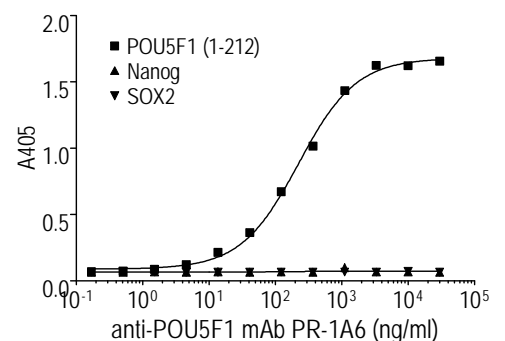
### A. SDS-PAGE



### B. WB



### C. ELISA



**Warranty:** Each Lot has been verified to meet quality specifications in accordance with testing guidelines. We will replace the product if it does not conform to specifications. Product guaranteed for 6 months from date of purchase if stored as directed. This product must not be resold without written permission from Primorigen Biosciences.

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