

#### PRODUCT INFORMATION SHEET

## **Mouse Monoclonal Antibody to Oct4**

Format: PURE RUO REF IQP-1487P Volume: 100µl

Description

Clone 7E7

**Isotype** Mouse IgG1

Specificity Oct4

Alternative names

OCT3; OCT4; OTF3; OTF4; OTF-3; Oct-3; Oct-4; MGC22487; POU5F1

Species Human

Immunogen Synthesized peptide derived from internal of human Oct4.

Mw 45kDa

**Format** Ascitic fluid containing 0.03% sodium azide.

#### **Summary**

This gene encodes a transcription factor containing a POU homeodomain. This transcription factor plays a role in embryonic development, especially during early embryogenesis, and it is necessary for embryonic stem cell pluripotency. A translocation of this gene with the Ewing's sarcoma gene, t(6;22)(p21;q12), has been linked to tumor formation. Alternative splicing, as well as usage of alternative translation initiation codons, results in multiple isoforms, one of which initiates at a non-AUG (CUG) start codon. Related pseudogenes have been identified on chromosomes 1, 3, 8, 10, and 12. (provided by RefSeq). Tissue specificity: Expressed in developing brain. Highest levels found in specific cell layers of the cortex, the olfactory bulb, the hippocampus and the cerebellum. Low levels of expression in adult tissues.

Applications ELISA: 1/10000; WB: 1/500 - 1/2000; ICC: 1/200 - 1/1000; FCM: 1/200 - 1/400

#### Limitations

- 1. Conjugates with brighter fluorochromes, like PE and APC, will have a greater separation than those with dyes like FITC and CyQ. When populations overlap, the percentage of positive cells using a selected marker can be affected by the choice of fluorescent label.
- Use of monoclonal antibodies in patient treatment can interfere with antigen target recognition by this reagent. This should be taken into account when samples are analyzed from patients treated in this fashion. IQ Products has not characterized the effect of the presence of therapeutic antibodies on the performance of this reagent.
- 3. Reagents can be used in different combinations, therefore laboratories need to become familiar performance characteristics of each antibody in relation with the combined markers in normal and abnormal samples.
- 4. Reagent data performance is based on EDTA-treated blood. Reagent performance can be affected by the use of other anticoagulants.

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## **Handling and Storage**

Store the vials at 2-8 °C for a maximum of 2 weeks and store at -20°C for longer term storage. Monoclonal antibodies should be protected from prolonged exposure to light when conjugated with fluorochromes. Reagents are stable for the period shown on the vial label when stored properly.

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#### Warranty

Products sold hereunder are warranted only to conform to the quantity and contents stated on the label at the time of delivery to the customer. There are no warranties, expressed or implied, which extend beyond the description on the label of the product. IQ Products is not liable for property damage, personal injury, or economic loss caused by the product.

#### Characterization

To ensure consistently high-quality reagents, each batch of monoclonal antibody is tested for conformance with characteristics of a standard reagent.

## Warning

All products contain sodiumazide. This chemical is poisonous and hazardous. Handling should be done by trained staff only.

#### References

1.Stem Cells. 2010 May;28(5):885-93. 2.Mol Med. 2010 Jul-Aug;16(7-8):247-53. 3.Med Sci (Paris). 2010 Apr;26(4):411-6.

# **Explanation of used symbols**



		Label - tandem	Ex -max (nm)	Em -max (nm)
P	PURE	purified material	r ci	-
F	FITC	FITC	488	519
R	R-PE	PE DIIG	488, 532	578
С	CyQ	PE-Cy5.18	488, 532	667
Α	APC		595, 633, 635, 647	660
PC	PerCP		488, 532	678
PCC	PerCP-Cy5.5		488, 532	695

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