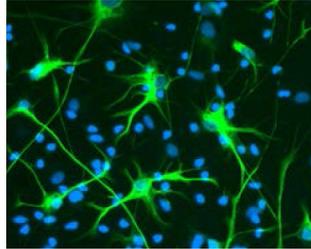


PRODUCT INFORMATION

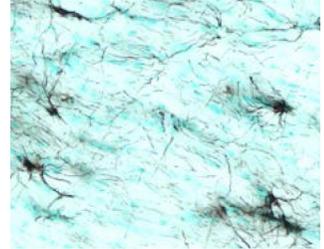
STEM123™

Mouse Monoclonal Antibody Specific for Human GFAP

Catalog Number: Y40420
Size: 50 µg
Volume: 100 µL
Isotype: IgG1
Form: Unconjugated



STEM123 detects human GFAP⁺ astrocytes differentiated from human neural stem cells *in vitro*.



STEM123 detects human GFAP⁺ astrocytes differentiated from human neural stem cells transplanted into a mouse brain.

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- Specificity:** STEM123 reacts specifically with glial fibrillary acidic protein (GFAP) of human cells. GFAP is an intermediate-filament protein that is highly expressed in astrocytes and other cells of astroglial lineage. This antibody does not cross-react with brain tissue or extracts from mouse or rat.
- Preparation and Storage:** STEM123 is generated from cell culture supernatant in serum-free conditions and is purified by protein G chromatography. The antibody is stored in Phosphate Buffered Saline (pH 7.4) containing 0.02% sodium azide.
Store at 2 - 8°C.
- Usage/Application:** STEM123 has been extensively used to identify astrocytes derived from human neural stem cells transplanted into mice and rats. *In vitro* and *in vivo* differentiation of human neural stem cells into astrocytes can be determined by immunohistochemistry (typically using a 1:1,000 dilution)^{1,2} and immunofluorescence (typically using a 1:500 dilution)^{1,3} using STEM123. It is recommended that the investigators determine optimal conditions for use of STEM123 in their own experiments.

References:

1. Tamaki SJ, *et al.* Neuroprotection of host cells by human central nervous system stem cells in a mouse model of infantile neuronal ceroid lipofuscinosis. *Cell Stem Cell.* (2009) **5**: 310-319.
2. Salazar DL, *et al.* Human neural stem cells differentiate and promote locomotor recovery in an early chronic spinal cord injury NOD-scid mouse model. *PLoS ONE.* (2010) **5**: e12272.
3. Cummings BJ, *et al.* Human neural stem cells differentiate and promote locomotor recovery in spinal cord-injured mice. *PNAS.* (2005) **102**: 14069-14074.

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Note

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