

STEM123™

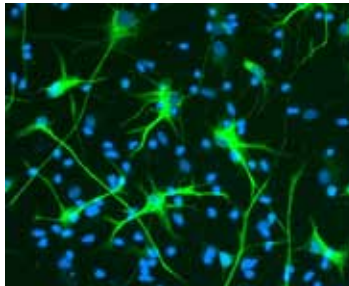
Mouse Monoclonal Antibody Specific for
Human GFAP



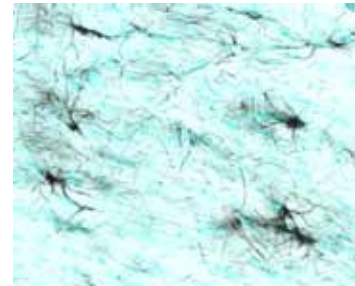
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Product Information

Catalog Number: AB-123-U-050
Size: 50µg
Volume: 100µL
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.

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 low serum 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 1:1000 dilution)^{1,2} and immunofluorescence (typically using a 1:500 dilution)^{1,3} using STEM123. It is recommended that the investigator 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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