SANTA CRUZ BIOTECHNOLOGY, INC.

OLIG2 (11-78): sc-4982

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The oligodendrocyte lineage-specific basic helix-loop-helix (OLIG) family of transcription factors include OLIG1-OLIG3, which differ in tissue expression. OLIG1 and OLIG2 are specifically expressed in nervous tissue as gene regulators of oligodendrogenesis. OLIG2 is more widely expressed in embryonic brain than OLIG1, while OLIG3 is primarily expressed in non-neural tissues. OLIG1 and OLIG2 interact with the Nkx-2.2 homeodomain protein, which is responsible for directing ventral neuronal patterning in response to graded Sonic hedgehog signaling in the embryonic neural tube. These interactions between OLIG proteins and Nkx-2.2 appear to promote the formation of alternate cell types by inhibiting V3 interneuron development. OLIG1 and OLIG2 are abundantly expressed in oligodendroglioma and nearly absent in astrocytomas. Therefore, OLIG proteins are candidates for molecular markers of human glial brain tumors, which are the most common primary malignancies of the human brain.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: OLIG2 (human) mapping to 21q22.11; Olig2 (mouse) mapping to 16 C3.3.

SOURCE

OLIG2 (11-78) is expressed in *E. coli* as a 35 kDa tagged fusion protein corresponding to amino acids 11-78 of OLIG2 of human origin.

PRODUCT

OLIG2 (11-78) is purified from bacterial lysates (>98%) by glutathione agarose affinity chromatography; supplied as 50 µg.in 0.1 ml buffer

APPLICATIONS

OLIG2 (11-78) is suitable as a Western blotting control for sc-19967 and sc-48817.

STORAGE

Store at -20° C; stable for one year from the date of shipment.

RESEARCH USE

For research use only, not for use in diagnostic procedures.