

Code No. 18953

**Anti-Human
Olig2 Rabbit IgG Affinity purify**

Volume : 100 µg

Lot No. : 1D-104

- Introduction** : Oligodendrocytes are defined as the glial cells of the central nervous system that make and maintain myelin wrapping around a nerve cell axon. And further, oligodendrocytes are considered as target of some disease such as autoimmune disease and brain tumor. However, there are some dissatisfaction in existing immunostaining tools for oligodendrocytes. The existing antibodies relatively unspecific and hardly react with oligodendroglioma. While, Olig2 is a transcription factor that controls development and differentiation of oligodendrocytes. It is reported that human Olig2 is specifically expressed in both oligodendrocytes and oligodendroglioma. This antibody recognizes human Olig2.
- Antigen** : Synthetic peptide of a C-terminal part of Human Olig2 (CMGAGSLPRLTSDAK)
- Purification** : Purified with antigen peptide
- Form** : Lyophilized product from PBS containing 1 % BSA and 0.05 % NaN₃
- How to use** : 1.0 mL deionized water will be added to the product, then its concentration comes to 100 µg/mL.
- Stability** : Lyophilized product, 5 years at 2 – 8 °C
: Solution, 2 years at –20 °C
- Application** : This antibody can be used for immunohistochemistry with formalin fixed paraffin embedded tissues after microwave pretreatment (10 min, 10 mM Citrate Buffer, pH 6.0). The optimal concentration is 0.1 - 1 µg/mL, however, the concentration should be optimized by each laboratory.
: This antibody can be used for western blotting in concentration of about 2 µg/mL.
- Specificity** : Cross-reacts with mouse and rat
- Reference** : 1. Lu QR, Yuk D, Alberta JA, Zhu Z, Pawlitzky I, Chan J, McMahon AP, Stiles CD, Rowitch DH. Sonic hedgehog--regulated oligodendrocyte lineage genes encoding bHLH proteins in the mammalian central nervous system. *Neuron*. 2000 Feb;25(2):317-29.
2. Zhou Q, Wang S, Anderson DJ. Identification of a novel family of oligodendrocyte lineage-specific basic helix-loop-helix transcription factors. *Neuron*. 2000 Feb;25(2):331-43.
3. Takebayashi H, Yoshida S, Sugimori M, Kosako H, Kominami R, Nakafuku M, Nabeshima Y. Dynamic expression of basic helix-loop-helix Olig family members: implication of Olig2 in neuron and oligodendrocyte differentiation and identification of a new member, Olig3. *Mech Dev*. 2000 Dec;99(1-2):143-8.
4. Marie Y, Sanson M, Mokhtari K, Leuraud P, Kujas M, Delattre JY, Poirier J, Zalc B, Hoang-Xuan K. OLIG2 as a specific marker of oligodendroglial tumour cells. *Lancet*. 2001 Jul 28;358(9278):298-300.
5. Lu QR, Park JK, Noll E, Chan JA, Alberta J, Yuk D, Alzamora MG, Louis DN, Stiles CD, Rowitch DH, Black PM. Oligodendrocyte lineage genes (OLIG) as molecular markers for human glial brain tumors. *Proc Natl Acad Sci U S A*. 2001 Sep 11;98(19):10851-6.
6. Yokoo H, Nobusawa S, Takebayashi H, Ikenaka K, Isoda K, Kamiya M, Sasaki A, Hirato J, Nakazato Y. Anti-human Olig2 antibody as a useful immunohistochemical marker of normal oligodendrocytes and gliomas. *Am J Pathol*. 2004 May;164(5):1717-25.

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