

## Product Information

### ANTI-GALACTOCEREBROSIDE

Delipidized Whole Antiserum

Product No. **G 9152**

#### Product Description

The product is a pooled delipidized antiserum produced in rabbits by repeated injections of a mixture of Galactocerebrosides I and II conjugated to Keyhole limpet hemocyanin according to Benjamins, et al.<sup>1</sup> The immunization process is carefully monitored to assure constant quality.

Specificity is determined at 1:50 dilution versus Galactocerebroside (1  $\mu$ g per dot) by dot blot immunoassay; negative or minimally cross-reactive with glucocerebroside. The product contains antibodies to KLH.

Galactocerebroside (galactosylceramide, Gal-C) is the major galactosphingolipid of myelin. It is expressed in cell membranes of oligodendrocytes in the central nervous system and in Schwann cells in peripheral nerves.<sup>2,3,4</sup> Galactocerebroside was shown to play an important role in the processes of normal development and myelination and is known to be an early marker of oligodendrocyte development. Involvement of Gal-C in the neural receptor for HIV gp120 was proposed recently.<sup>6,7</sup> Galactocerebroside is found in the serum and cerebral spinal fluid of patients with demyelinating diseases such as multiple sclerosis. Antibodies to Gal-C are valuable tools for labeling myelin sheaths, oligodendrocytes and Schwann cells. They have been used for staining cultured cells, cell suspensions, frozen tissue sections and perfusion-fixed tissues. Staining of myelin sheaths by antibodies to Gal-C was reported in epoxy sections and in some formalin-fixed tissues.<sup>3,6,7</sup> Such antibodies were used for studies on alteration of oligodendrocyte organization and functions *in vitro* and for inhibition of entry of Type I human immunodeficiency virus (HIV-1).

Anti-Galactocerebroside may be used for detection of galactocerebroside in normal and neoplastic neural tissues and for functional studies of galactocerebroside

in cultured human and animal oligodendrocytes and Schwann cells.

#### Reagents

The product contains 0.1% sodium azide as preservative.

#### Precautions and Disclaimer

Due to the sodium azide content a material safety sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazardous and safe handling practices.

#### Product Profile

At least 1:50 by dot blot immunoassay using galactocerebroside type I and galactocerebroside type II at 0.5mg/ml each (1mg/ml total).

#### Storage

For continuous use, store at 2-8 °C for up to one month. For extended storage, the solution may be frozen in working aliquots. Repeated freezing and thawing is **not** recommended. Storage in "frost-free" freezers is **not** recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use.

#### References

1. Benjamins, J., et al., J. Neuroimmunol., **14**, 325-328 (1987).
2. Raff, M., et al., Nature, **274**, 813-816 (1978).
3. Zalc, B., et al., Brain Res., **211**, 341-354 (1981).
4. Dyer, C., and Benjamins, Y., J. Neurosci., **8**, 4307-4318 (1988).
5. Prineas, J., et al., Lab. Invest., **61**, 489-503 (1989).
6. Harouse, J., et al., Science, **253**, 320-323 (1991).
7. Bhat, S., et al., Proc. Natl. Acad. Sci. USA, **88**, 7131-7134, (1991)

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