

JNS 2545

Selective Staining of a Subset of Purkinje Cells in the Human Cerebellum with Monoclonal Antibody mabQ113

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(Received 31 January, 1985)

(Revised, received 15 May, 1985)

(Accepted 15 May, 1985)

SUMMARY

MabQ113 is a monoclonal antibody raised against rat cerebellum which selectively stains Purkinje cells. Likewise, in mabQ113-immunoperoxidase stained sections of human cerebellum, deposits of reaction product are found only in the Purkinje cells. The dendritic arborizations, cell body, and axonal processes are immunoreactive. In rat, mabQ113 reveals a series of parasagittal antigenic bands which run throughout the cerebellar cortex. The staining distribution in human cerebellar cortex likewise reveals heterogenous staining but the pattern is a complex one and seems to be unlike the parasagittal banding found in the rat. In a number of human diseases Purkinje cell degeneration is not uniform throughout the vermis and cerebellar hemispheres. It is possible that mabQ113⁺ and mabQ113⁻ subsets of Purkinje cells may respond differentially to various pathological conditions.

Key words: *Cerebellum – Monoclonal antibodies – Purkinje cells*

This work was supported by grants from the medical Research Council of Canada and Fonds de la Paralyse Cérébrale, and by a MRC fellowship to A.V.P.

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