Anti-Dopamine-β-Hydroxylase (C-Terminal) produced in sheep, affinity isolated antibody

Catalog Number D216

Product Description
Anti-Dopamine-β-Hydroxylase (C-terminal) was produced in sheep using a synthetic peptide (Cys-Pro-Thr-Ser-Gln-Gly-Arg-Ser-Pro-Ala-Gly-Pro-Thr-Val-Val-le-amide) from the C-terminal region of human dopamine-β-hydroxylase conjugated to KLH as the immunogen. It is prepared from the IgG fraction of sheep serum by affinity chromatography using the free synthetic peptide coupled to a Sulfo-Link column.

Anti-Dopamine-β-Hydroxylase (C-terminal) reacts specifically with a single (or double) band at 70-75 kDa in samples of SDS-solubilized, DTT-reduced human adrenal medulla subjected to SDS-PAGE. In immunoblotting, cross-reactivity is seen with monkey, bovine and rabbit adrenal medulla, but not sheep, dog or rat. In immunohistochemistry, staining is seen in the locus coeruleus of formaldehyde-fixed, cryopreserved human and monkey brain.

Dopamine receptors were initially divided into two general categories on the basis of differences in receptor pharmacology and biochemical mechanisms of signal transduction. With the application of the techniques of molecular biology, two predominant dopamine receptors, D1 and D2, were cloned. Later other dopamine receptors with homology to either the D1 or D2 receptor were identified. Thus, at present, two families of vertebrate dopamine receptors (designated as D1-like and D2-like) are recognized. The D1-like family consists of the D1 and D5 receptors while the D2-like family consists of the D2, D3 and D4 receptors.

The D1 and D2 receptors occur in sufficiently high concentrations that they can be studied in situ. The D3, D4 and D5 receptors occur in such low concentrations that study of them in situ is difficult. Thus, the majority of studies of these receptors has been accomplished using cell lines cloned to express these receptors.

Dopamine-β-hydroxylase (DBH) is the enzyme responsible for the conversion dopamine to norepinephrine in cells. Because of this activity, it is abundant in adrenergic neurons and can be easily assayed to act as a marker for these types of neurons.

Reagents
Supplied as a solution in 10 mM HEPES, pH 7.5, 150 mM NaCl, 0.1 mg/ml BSA and 50% glycerol.

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability
Store tightly sealed at –20 °C. Upon initial use, solution should be frozen at –70 °C in working aliquots. Storage in “frost-free” freezers, or repeated freezing and thawing, is not recommended. If slight turbidity occurs upon prolonged storage, clarify by centrifugation before use.

References

MCT,PHC 12/05-1