

D-Aspartate localization in the rat pituitary gland and retina

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Abstract

Rat pituitary gland and retina were probed with anti-D-aspartate (D-Asp) antibody previously prepared in this laboratory [Lee et al., *Biochem. Biophys. Res. Commun.*, 231 (1997) 505-508]. D-Asp immunoreactivity (IR) was observed only in the posterior lobe of the pituitary gland of 3-day-old rats, whereas the anterior and posterior lobes were also positive in 3-week and 6-week-old rats, respectively. In the anterior lobe, intense IR was scattered throughout the lobe and the D-Asp-positive cells appeared to be prolactin-containing cells or some other very closely related type of cell. In the retina, D-Asp IR was observed only in the ganglion cell and nerve fiber region of 3-day-old rats. In contrast, during the transient increase in D-Asp levels in 7-day-old rats, D-Asp IR was additionally evident in regions where differentiating bipolar cells had begun to make contact with other types of cells. The functional relevance of D-Asp localization in these tissues is discussed. Copyright 1999 Elsevier Science B.V.