



Short communication

Clenbuterol enhances the production of kynurenic acid in brain cortical slices and glial cultures

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Abstract:

The effect of a β_2 -adrenergic agonist, clenbuterol on the production of a glutamate receptor antagonist, kynurenic acid was studied *in vitro*. Clenbuterol enhanced the production of kynurenic acid in brain cortical slices (0.1–1.0 mM) and in glial cultures (1–50 μ M). Timolol, a non-selective β -adrenergic antagonist prevented this effect. The presented data indicate a novel mechanism of action of β_2 -adrenoceptor agonists and suggest that an increased formation of the endogenous glutamate receptor antagonist, kynurenic acid could partially contribute to their neuroprotective activity.

Key words:

β -adrenergic agonist, kynurenic acid, glial culture, *in vitro*
