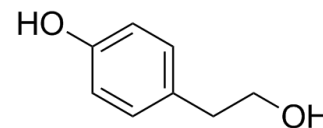


Tyrosol

Cat. No.:	HY-N0474
CAS No.:	501-94-0
Molecular Formula:	C ₈ H ₁₀ O ₂
Molecular Weight:	138.16
Target:	NF-κB
Pathway:	NF-κB
Storage:	4°C, stored under nitrogen
	* In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



BIOLOGICAL ACTIVITY

Description	Tyrosol is a derivative of phenethyl alcohol. Tyrosol attenuates pro-inflammatory cytokines from cultured astrocytes and NF-κB activation. Anti-oxidative and anti-inflammatory effects ^[1] .
In Vitro	<p>Tyrosol (1.6 mM) significantly increases the cell viability of cultured astrocytes exposed to oxygen glucose deprivation (OGD)^[1].</p> <p>Tyrosol (1.6 mM) attenuates the released TNF-α and IL-6 level from astrocyte via regulating Janus N-terminal kinase (JNK) ^[1].</p> <p>The reduction of cytokines from astrocyte might be due to its inhibition of astrocyte activation and regulation of STAT3 signaling pathway since Tyrosol (1.6 mM) attenuates the expression level of GFAP (glial fibrillary acidic protein) and the phosphorylation of STAT3^[1].</p> <p>Tyrosol prevents the degradation of IκBα and the increase of IκBα phosphorylation in astrocytes exposed to OGD, which leads to the suppression of NF-κB function during ischemia^[1].</p>
In Vivo	Sub-plantar injection of carrageenan causes a noticeable increase in paw thickness, reaching a peak after 2 h post-injection. This effect is reduced when Tyrosol (0.5 mg/kg) or Tyrosol-sulphate is injected prior to the treatment with carrageenan. Similar AUC values for paw oedema are obtained after the administration of Tyrosol at a dose of 0.5 mg/kg and Tyrosol-sulphate at a dose of 0.1 mg/kg.

REFERENCES

[1]. Luo G, et al. Tyrosol attenuates pro-inflammatory cytokines from cultured astrocytes and NF-κB activation in in vitro oxygen glucose deprivation. *Neurochem Int.* 2018 Dec;121:140-145.

[2]. Muriana FJG, et al. Tyrosol and its metabolites as antioxidative and anti-inflammatory molecules in human endothelial cells. *Food Funct.* 2017 Aug 1;8(8):2905-2914.

Caution: Product has not been fully validated for medical applications. For research use only.

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