

A phytochemical for prevention or treatment of neurodegenerative diseases such as Alzheimer's disease and ALS

Innovation & Advantages:

- **In cultured N2a neuronal cells** – It protects neurons against Amyloid β ($A\beta$)- and glutamate- induced cell death and it inhibits $A\beta$ - and glutamate- induced intracellular ROS levels. This compound also prevents the $A\beta$ - induced phosphorylation of MEK1, ERK1/2, SAPK/JNK and CREB.
 - **In primary cultures of microglial cells** - It inhibits the LPS - elicited secretion of IL-1 β and IL-6 from microglial cells.
 - **In primary cultures of astrocytes** - it protects astrocytes from H₂O₂-induced: (1) cell death (2) ROS production (3) phosphorylation of MEK1, ERK1/2, SAPK/JNK and CREB.
 - **In vitro** – Has radical scavenging ability.
- This compound also crosses the plasma membranes of glial cells and prevents the accumulation of reactive oxygen species (ROS) inside the cells. Due to its low polarity and low molecular weight (MW 320), it is suggested that this compound might also traverse the blood brain barrier.

Figure 1

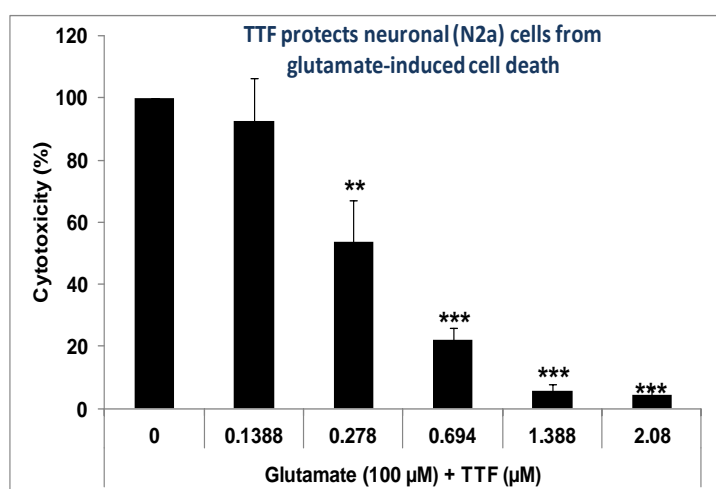
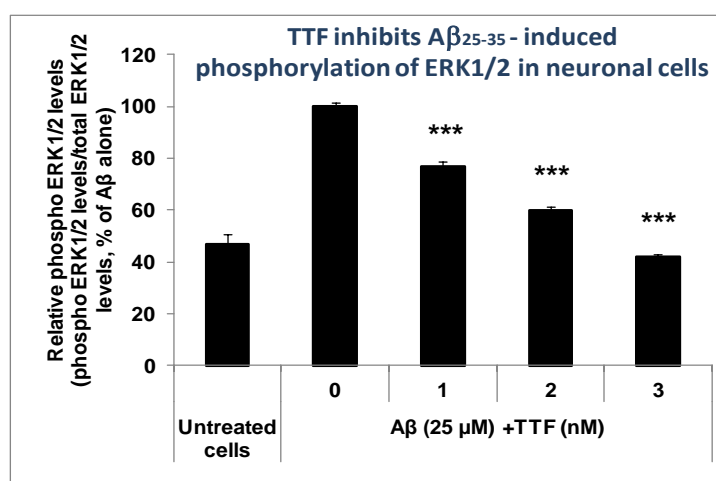


Figure 2



Development status:

- PreClinical

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