

ACSF

Chemical Properties

CAS No. :

Formula: C₂₀H₂₀N₂O₂

Molecular Weight: 320.38

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.

Biological Description

Description	ACSF is often used as a replacement of CSF for perfusion of brain slices to preserve interneurons. ACSF is invented to reduce the incidence of cerebral edema and further suppress brain cell disorders. And ACSF is often used as an irrigation fluid or perfusion fluid in the field of neurosurgery, such as intracranial surgery, or when used as a replenishing fluid for lost cerebrospinal fluid. ACSF is also used to maintain pH balance and tissue oxygen delivery for research.
Targets(IC50)	Others
In vitro	ACSF is often used to maintain oxygen supply in the study of basic characteristics of a neuronal function where acute in vitro brain slice models are required. When tested with neocortical mouse slices, carbonated ACSF treatment could keep pH balance and tissue oxygen delivery; otherwise, seizure-like events occurred in the slices with no-magnesium ACSF treatment [1].
In vivo	In the study of targeted drugs to protect neurons, ACSF is often used to treat the mice and worked as a control to calculate drug efficiency. It is also reported in the rat brain slice model, treated with ACSF, a replacement of human CSF, could powerfully boost spontaneous firing of CA1, CA3, and layer 5 pyramidal neurons [3][4].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.1213 mL	15.6065 mL	31.2129 mL
5 mM	0.6243 mL	3.1213 mL	6.2426 mL
10 mM	0.3121 mL	1.5606 mL	3.1213 mL
50 mM	0.0624 mL	0.3121 mL	0.6243 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481