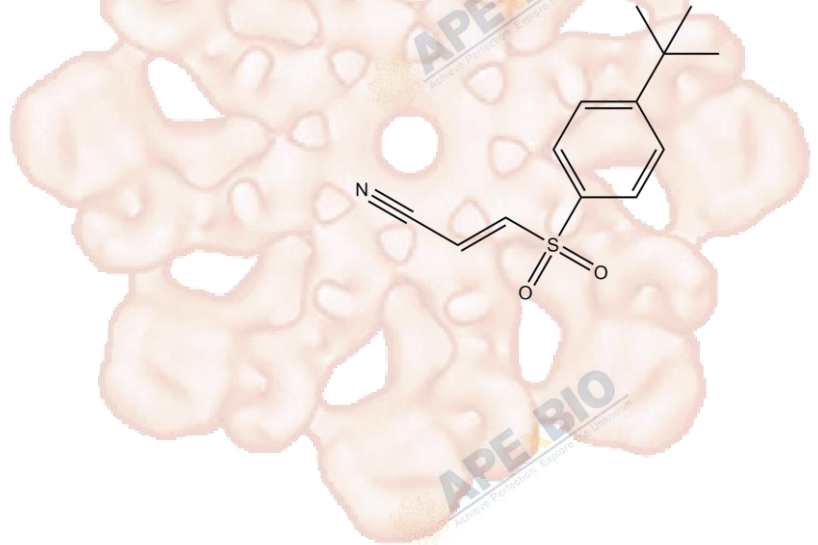


# Product Data Sheet

## Bay 11-7085

<b>Cat. No.:</b>	B3033
<b>CAS No.:</b>	196309-76-9
<b>Formula:</b>	C <sub>13</sub> H <sub>15</sub> NO <sub>2</sub> S
<b>M.Wt:</b>	249.33
<b>Synonyms:</b>	
<b>Target:</b>	Immunology/Inflammation
<b>Pathway:</b>	IκB/IKK
<b>Storage:</b>	Store at -20°C



### Solvent & Solubility

≥ 12.45 mg/mL in DMSO

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	<b>Concentration</b>			
	<b>1 mM</b>	4.0107 mL	20.0537 mL	40.1075 mL
	<b>5 mM</b>	0.8021 mL	4.0107 mL	8.0215 mL
	<b>10 mM</b>	0.4011 mL	2.0054 mL	4.0107 mL

Please refer to the solubility information to select the appropriate solvent.

### Biological Activity

Shortsummary

NK-κB activation inhibitor

IC<sub>50</sub> & Target

10 μM (IκBα phosphorylation)

In Vitro

#### Cell Viability Assay

Cell Line: ECSCs and NESCs

Preparation method: The solubility of this compound in DMSO is > 12.5 mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below - 20 °C for several months.

Reacting conditions: 0.01 ~ 10 μM;

	Applications:	In ECSCs and NESCs, BAY 11-7085 significantly inhibited cell viability in a dose-dependent manner. At the dose of 10 $\mu$ M, ECSCs and NESCs treated with BAY 11-7085 showed 66.1% and 54.7% decreases in cell viability, respectively. In addition, according to the results of the BrdU incorporation assay, at the dose of 10 $\mu$ M, BAY 11-7085 significantly inhibited the BrdU incorporation of ECSCs in a dose-dependent manner (53.2% decrease), whereas BAY 11-7085 only showed a weak inhibitory effect on the BrdU incorporation of NESCs (38.2% decrease). Therefore, BAY 11-7085 showed stronger inhibitory effects on the cell viability and the cell proliferation of ECSCs than on those of NESCs.
In Vivo	<b>Animal experiment</b>	
	Animal models:	Rat model of pneumococcal meningitis
	Dosage form:	20 mg; i.p.
	Applications:	In rat model of pneumococcal meningitis, BAY 11-7085 significantly reduced meningitis-associated loss of cerebrovascular autoregulation. Besides, also BAY 11-7085 also significantly reduced increases in CSF WBCs, ICP and BBB permeability caused by pneumococcal infection. The results of Western blot analysis showed BAY 11-7085 inhibited meningitis-associated increase in NF- $\kappa$ B activity.
Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.	

## Product Citations

1. Wang Y, Li Y, et al. "The cerebral cavernous malformation disease causing gene KRIT1 participates in intestinal epithelial barrier maintenance and regulation." FASEB J. 2018 Sep 25:fj201800343R.PMID:30252535

See more customer validations on [www.apexbt.com](http://www.apexbt.com).

## References

- [1]. Nasu K1, Nishida M, Ueda T, Yuge A, Takai N, Narahara H. Application of the nuclear factor- $\kappa$ B inhibitor BAY 11-7085 for the treatment of endometriosis: an in vitro study. Am J Physiol Endocrinol Metab. 2007 Jul;293(1):E16-23
- [2]. Koedel U, Bayerlein I, Paul R, Sporer B, Pfister HW. Pharmacologic interference with NF- $\kappa$ B activation attenuates central nervous system complications in experimental Pneumococcal meningitis. J Infect Dis. 2000 Nov;182(5):1437-45.

## Caution

**FOR RESEARCH PURPOSES ONLY.**



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**NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.



**APExBIO Technology**

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