



## Amoxicillin [KLH] (DAG4477)

This product is for research use only and is not intended for diagnostic use.

### PRODUCT INFORMATION

<b>Product Overview</b>	Amoxicillin, KLH-conjugate
<b>Antigen Description</b>	The amoxicillin and KLH (keyhole limpet hemocyanin) (10 mg each) are conjugated by EDC method in 0.1 M MES pH 5.0. The carboxyl group in the amoxicillin is directly linked to an amine group in the KLH, and/or a carboxyl group in the KLH is directly linked to the amine group in the amoxicillin, without any linker by EDC conjugation method. Given the molecular weights of amoxicillin and KLH are 365.4 Da and 8,000 – 9,000 kDa, respectively, the molar ratio of amoxicillin:KLH in the conjugation solution is 21894 - 24631:1. The resultant conjugation solution is then buffer-exchanged with 20 mM PBS, pH 7.4. The number of amoxicillin that is actually conjugated to each KLH molecule is not determined. Note: Due to its high molecular weight and its tendency to form aggregates, the conjugate is not completely soluble in the buffer that it is in. Therefore, it is strongly recommended to vigorously vortex immediately prior to aliquot or use.
<b>Species</b>	N/A
<b>Conjugate</b>	KLH
<b>Applications</b>	Used as immunogen for the generation of anti-amoxicillin antibodies. The amoxicillin, KLH-conjugate has been successfully used as an immunogen in inducing amoxicillin specific antibodies in mice.
<b>Format</b>	Liquid
<b>Concentration</b>	Approximately 2.0 mg/mL KLH
<b>Size</b>	1 mg
<b>Buffer</b>	Supplied in 20 mM PBS, pH 7.4
<b>Preservative</b>	None

**Storage**

Keep below -20°C for up to 1 year. Avoid repeated freeze-and-thaw. For short term storage (< 3 weeks) keep at 4°C.

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## BACKGROUND

**Introduction**

Amoxicillin is a penicillin in which the substituent at position 6 of the penam ring is a 2-amino-2-(4-hydroxyphenyl)acetamido group. It has a role as an antibacterial drug. Amoxicillin Anhydrous is the anhydrous form of a broad-spectrum, semisynthetic aminopenicillin antibiotic with bactericidal activity. Amoxicillin binds to and inactivates penicillin-binding proteins (PBPs) located on the inner membrane of the bacterial cell wall. Inactivation of PBPs interferes with the cross-linkage of peptidoglycan chains necessary for bacterial cell wall strength and rigidity. This interrupts bacterial cell wall synthesis and results in the weakening of the bacterial cell wall and causes cell lysis.

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**Keywords**

Amoxicillin; amox; AMOXICILLIN T TRIHYDRATE; AMOXICILIN TRIHYDRATE; AMOXYCILLIN TRIHYDRATE; abicyclo[3.2.0]heptane-2-carboxylic acid trihydrate; alpha-amino-p hydroxybenzylpenicillin; amolin; amopenixin; amoxi; amoxicillin standard solution; amoxicillin trihydrate

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