

## Product datasheet for **AM08097BT-N**

### Rat Kappa Light Chain Mouse Monoclonal Antibody [Clone ID: K 4F5]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	K 4F5
Applications:	ELISA, FC
Recommended Dilution:	<b>Flow Cytometry:</b> Identification and enumeration of rat kappa light chain+. <b>ELISA.</b>
Reactivity:	Rat
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Specificity:	This antibody reacts with Rat kappa light chains.
Formulation:	PBS containing 0.09% Sodium Azide as preservative. Label: Biotin State: Liquid purified Ig fraction.
Concentration:	lot specific
Conjugation:	Biotin
Storage:	Store the antibody undiluted at 2-8°C for one month or in (aliquots) at -20°C for longer. This product is photosensitive and should be protected from light. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.



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**Background:**

Immunoglobulins belong to a group of related glyco proteins which make up 20% of serum proteins. Antigens and immunoglobulins react to confer immunity to individuals. Immunoglobulins have similar structures of two identical heavy chains and two identical light chains. Both the heavy chains and the light chains are divided into constant and variable regions. The constant regions have the same amino acid sequences between all the immunoglobulin classes. The variable regions have approximately 110 amino acids with high sequence variability. The amino acid sequence of the heavy chain determines the class of an immunoglobulin. The five types of immunoglobulin heavy chains are known as: IgG, IgA, IgM, IgD, and IgE. IgG is divided into four subclasses, and IgA is divided into two subclasses. In serum IgA and IgG are monomers with a single 4 polypeptide unit; while, IgM is a pentamer. IgA may also form polymers.

Kappa light chain antibody can be used for the identification of leukemias, plasmacytomas and certain non Hodgkin's lymphomas. Kappa light chain contains one immunoglobulin like domain. The EU sequence has the INV allotypic marker, Ala 45 and Val 83. The ROY sequence has the INV allotypic marker, Ala 45 and Leu 83.