

## Product datasheet for **AM05221PU-N**

### Cyclin E1 (CCNE1) Mouse Monoclonal Antibody [Clone ID: 168]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	168
Applications:	IP, WB
Recommended Dilution:	Western Blot: A 50 kDa band corresponding to human cyclin E protein is detected. Immunoprecipitation.
Reactivity:	Human, Monkey
Host:	Mouse
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	Recombinant full-length human cyclin E protein.
Formulation:	PBS containing 0.08% Sodium Azide as preservative. State: Purified State: Liquid (sterile filtered) purified IgG fraction.
Concentration:	lot specific
Conjugation:	Unconjugated
Storage:	Store the antibody (in aliquots) at -20°C. Avoid repeated freezing and thawing.
Stability:	Shelf life: One year from despatch.
Gene Name:	cyclin E1
Database Link:	<a href="#">Entrez Gene 898 Human P24864</a>



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**Background:**

Human cyclin E was originally identified by complementation of a triple *cln* deletion in *Saccharomyces cerevisiae*. Following the identification of human cyclin E protein, researchers found that breast cancers and some other solid tumors exhibited both quantitative and qualitative alterations in cyclin E protein production. In particular, the alterations in cyclin E expression in breast cancer correlated with increasing stage and grade of the tumor. These results suggested that cyclin E might be useful as a prognostic marker. More recently, Geng et al generated a mouse strain in which the coding sequences for cyclin D1 was deleted and replaced with those of human cyclin E. Replacement of cyclin D1 with cyclin E rescued all phenotypic manifestations seen in the cyclin D1 deficient mice and restored normal development to cyclin D1-dependent tissues. Based on the results of these studies, it appears that cyclin E is the major downstream target of cyclin D1. In addition to functioning downstream of cyclin D1, recent studies with *Xenopus* egg extracts demonstrated that cyclin E localizes to the centrosome. In these studies CDK2-cyclin E activity was shown to be required for centrosome duplication during S phase. Taken together, these data suggest a mechanism that coordinates centrosome reproduction with cycles of DNA synthesis and mitosis.

**Synonyms:**

Cyclin-E1, CCNE1, CCNE