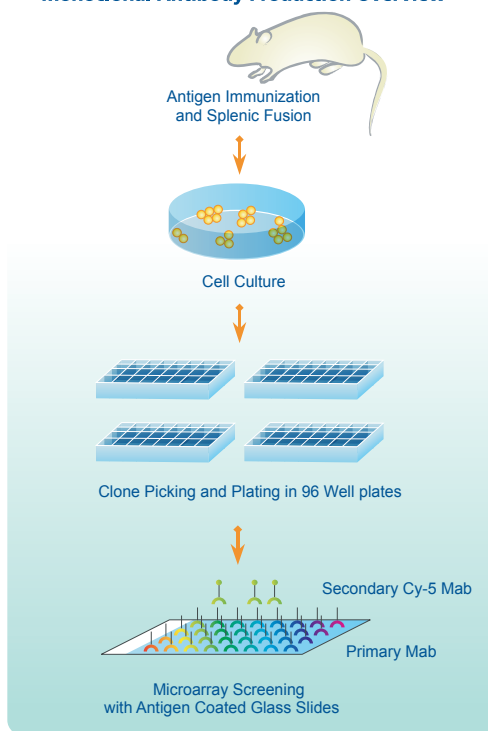



High Throughput Monoclonal Antibody Production

Abnova is developing the most comprehensive antibody bio-tool catalog for the drug discovery industry. We use recombinant proteins expressed from *in vitro* wheat germ system as immunogens for our antibody production. Such proteins mirror the conformation and folding of the native proteins in the eukaryotic biological system, unlike synthetic peptides and *E. coli* expressed proteins. Using a low dose immunization technique in combination with a proprietary adjuvant, we are able to generate a high-titer antibody response against the immunogen. Abnova's high throughput mouse monoclonal antibody production is fully automated for fusion, subcloning, liquid handling, antibody screening, and characterization. We also have the flexibility of offering additional monoclonal antibodies to our customers for their intended applications.

Monoclonal Antibody Production Overview*



Under License from European Molecular Biology Laboratory

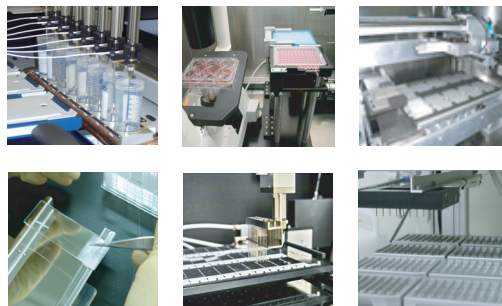
*Under license from EMBL, abbreviation of European Molecular Biology Laboratory. 
 De Masi F, Chiarella P, Wilhelm H, Massimi M, Bullard B, Ansorge W, Sawyer A. High throughput production of mouse monoclonal antibodies using antigen microarrays. *Proteomics*. 2005 Nov;5(16):4070-81

Advantages

- Multiple Antigen Immunization
- Robotic Monoclonal Isolation
- Multiplex Antigen Microarray Screening
- Clone Availability in 8 Weeks
- Ideal for Phospho-Mab Production

Applications

- Western Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytometry
- Sandwich ELISA
- Competitive ELISA
- RNAi Knockdown
- *in situ* Hybridization
- Radioimmunoassay



Abnova Monoclonal Antibody References

Cat. Num.	Product Name	Reference
H00006421-M02	SFPQ monoclonal antibody (M02), clone 6D7	A cell-based screen for splicing regulators identifies hnRNP LL as a distinct signal-induced repressor of CD45 variable exon 4. Topp JD, Jackson J, Melton AA, Lynch KW. RNA. 2008 Oct;14(10):2038-49. Epub 2008 Aug 21. (PubMed ID: 18719244)
H00056937-M01	TMEPA1 monoclonal antibody (M01), clone 2A12	A feedback loop between the androgen receptor and a NEDD4 binding protein, PMEPA1 in prostate cancer cells. Li H, Xu LL, Masuda K, Raymundo E, McLeod DG, Dobi A, Srivastava S. J Biol Chem. 2008 Aug 14. [Epub ahead of print] (PubMed ID: 18703514)
H00003043-M01	HBB monoclonal antibody (M01), clone 2H3	A novel transgenic mouse model produced from lentiviral germline integration for the study of beta-thalassemia gene therapy. Li W, Xie S, Guo X, Gong X, Wang S, Lin D, Zhang J, Ren Z, Huang S, Zeng F, Zeng Y. Haematologica. 2008 Mar;93(3):356-62. Epub 2008 Feb 11. (PubMed ID: 18268280)
H00005252-M01	PHF1 monoclonal antibody (M01), clone 2D3	A polycomb group protein, PHF1, is involved in the response to DNA double-strand breaks in human cell. Hong Z, Jiang J, Lan L, Nakajima S, Kanno SI, Koseki H, Yasui A. Nucleic Acids Res. 2008 May;36(9):2939-47. Epub 2008 Apr 1. (PubMed ID: 18385154)
H00010327-M01	AKR1A1 monoclonal antibody (M01), clone 1A11-2A4	Aldo-keto reductase 1C2 fails to metabolize doxorubicin and daunorubicin <i>in vitro</i> . Takahashi RH, Bains OS, Pfeifer TA, Grigliatti TA, Reid RE, Riggs KW. Drug Metab Dispos. 2008 Jun;36(6):991-4. Epub 2008 Mar 5. (PubMed ID: 18322072)
H00001646-M03	AKR1C2 monoclonal antibody (M03), clone 3C11	Characterization of TMPRSS2:ETV5 and SLC45A3:ETV5 gene fusions in prostate cancer. Helgeson BE, Tomlins SA, Shah N, Laxman B, Cao Q, Prensner JR, Cao X, Singla N, Montie JE, Varambally S, Mehra R, Chinnaiyan AM. Cancer Res. 2008 Jan 1;68(1):73-80. (PubMed ID: 18172298)
H00002119-M01	ETV5 monoclonal antibody (M01), clone 3B10	
H00002119-M02	ETV5 monoclonal antibody (M02), clone 7C10	
H00027161-M01	EIF2C2 monoclonal antibody (M01), clone 2E12-1C9	Dynamic Interaction between P-Bodies and Transport Ribonucleoprotein Particles in Dendrites of Mature Hippocampal Neurons. Zeitelhofer M, Karra D, Macchi P, Tolino M, Thomas S, Schwarz M, Kiebler M, Dahm R. J Neurosci. 2008 Jul 23;28(30):7555-62. (PubMed ID: 18650333)
H00000381-M01	ARF5 monoclonal antibody (M01), clone 1B4	EFA6 facilitates the assembly of the tight junction by coordinating an Arf6-dependent and independent pathway. Klein S, Partisani M, Franco M, Luton F. J Biol Chem. 2008 Sep 8. [Epub ahead of print] (PubMed ID: 18779331)
H00029121-M01	CLEC2D monoclonal antibody (M01), clone 4C7	Functional Consequences of Interactions between Human NKR-P1A and Its Ligand LLT1 Expressed on Activated Dendritic Cells and B Cells. Rosen DB, Cao W, Avery DT, Tangye SG, Liu YJ, Houchins JP, Lanier LL. J Immunol. 2008 May 15;180(10):6508-17. (PubMed ID: 18453569)
H00003283-M01	HSD3B1 monoclonal antibody (M01), clone 3C11-D4	HSD3B1 as a novel trophoblast-associated marker that assists in the differential diagnosis of trophoblastic tumors and tumorlike lesions. Mao TL, Kurman RJ, Jeng YM, Huang W, Shih IM. Am J Surg Pathol. 2008 Feb;32(2):236-42. (PubMed ID: 18223326)
H00010410-M01	IFITM3 monoclonal antibody (M01), clone 4C8-1B10	Interactions between PBEF and oxidative stress proteins - A potential new mechanism underlying PBEF in the pathogenesis of acute lung injury. Zhang LQ, Adyshv DM, Singleton P, Li H, Cepeda J, Huang SY, Zou X, Verin AD, Tu J, Garcia JG, Ye SQ. FEBS Lett. 2008 Jun 11;582(13):1802-8. Epub 2008 May 16. (PubMed ID: 18486613)
H00009246-M01	UBE2L6 monoclonal antibody (M01), clone 2F12-1F4	
H00055743-M01	CHFR monoclonal antibody (M01), clone 1H3-A12	Loss of CHFR in human mammary epithelial cells causes genomic instability by disrupting the mitotic spindle assembly checkpoint. Privette LM, Weier JF, Nguyen HN, Yu X, Petty EM. Neoplasia. 2008 Jul;10(7):643-52. (PubMed ID: 18592005)
H00010962-M01	AF1Q monoclonal antibody (M01), clone 2A9-1B7	Oncogene AF1q enhances doxorubicin-induced apoptosis through BAD-mediated mitochondrial apoptotic pathway. Co NN, Tsang WP, Wong TW, Cheung HH, Tsang TY, Kong SK, Kwok TT. Mol Cancer Ther. 2008 Oct;7(10):3160-8. (PubMed ID: 18852119)
H00055669-M04	MFN1 monoclonal antibody (M04), clone 3C9	PGC1(alpha) relationship with skeletal muscle palmitate oxidation is not present with obesity, despite maintained ained PGC1(alpha) and PGC1(beta) protein. Holloway GP, Perry CG, Thrush AB, Heigenhauser GJ, Dyck DJ, Bonen A, Sprlet LL. Am J Physiol Endocrinol Metab. 2008 Jun;294(6):E1060-9. Epub 2008 Mar 18. (PubMed ID: 18349111)
H00009927-M03	MFN2 monoclonal antibody (M03), clone 4H8	
H00005467-M01	PPARD monoclonal antibody (M01), clone 4E3-1B11	
H00009590-M01	AKAP12 monoclonal antibody (M01), clone 1C5	Quantitative and temporal proteome analysis of butyrate-treated colorectal cancer cells. Tan HT, Tan S, Lin Q, Lim TK, Hew CL, Chung MC. Mol Cell Proteomics. 2008 Jun;7(6):1174-85. Epub 2008 Mar 14. (PubMed ID: 18344232)
H00003956-M01	LGALS1 monoclonal antibody (M01), clone 1E8-1B2	
H00009554-M01	SEC22L1 monoclonal antibody (M01), clone 1E1	
H00026135-M01	PAI-RBP1 monoclonal antibody (M01), clone 1D2-2E9	Rapid changes of mRNA binding protein levels following glucose and IBMX stimulation of insulinoma INS-1 cells. Suš C, Czupalla C, Winter C, Pursche T, Knoch KP, Schroeder M, Hoffack B, Solimena M. Mol Cell Proteomics. 2008 Oct 14. [Epub ahead of print] (PubMed ID: 18854578)
H00005094-M07	PCBP2 monoclonal antibody (M07), clone 5F12	
H00026330-M01	GAPDS monoclonal antibody (M01), clone 2E3-2E10	SMAD proteins control DROSHA-mediated microRNA maturation. Davis BN, Hilyard AC, Lagna G, Hata A. Nature. 2008 Jul 3;454(7200):56-61. Epub 2008 Jun 11. (PubMed ID: 18548003)
H00010875-M01	FGL2 monoclonal antibody (M01), clone 6D9	Targeted Deletion of fg12 Leads to Impaired Regulatory T Cell Activity and Development of Autoimmune Glomerulonephritis. Shalev I, Liu H, Kosciak C <i>et al</i> . J Immunol. 2008 Jan 1;180(1):249-60. (PubMed ID: 18097026)
H00023435-M01	TARDBP monoclonal antibody (M01), clone 2E2-D3	TDP-43 accumulation in inclusion body myopathy muscle suggests a common pathogenic mechanism with frontotemporal dementia. Weihi CC, Temiz P, Miller SE, Watts G, Smith C, Forman M, Hanson PI, Kimonis V, Pestronk A. J Neurol Neurosurg Psychiatry. 2008 Oct;79(10):1186-9. (PubMed ID: 18796596)
H00006786-M01	STIM1 monoclonal antibody (M01), clone 5A2	The calcium sensor STIM1 is an essential mediator of arterial thrombosis and ischemic brain infarction. Varga-Szabo D, Braun A, Kleinschnitz C, Bender M, Pleines I, Pham M, Renné T, Stoll G, Nieswandt B. J Exp Med. 2008 Jul 7;205(7):1583-91. Epub 2008 Jun 16. (PubMed ID: 18559454)
H00009958-M01	USP15 monoclonal antibody (M01), clone 1C10	The COP9/signalosome increases the efficiency of pVHL ubiquitin ligase-mediated hypoxia inducible factor-alpha ubiquitination. Miyachi Y, Kato M, Tokunaga F, Iwai K. J Biol Chem. 2008 Jun 13;283(24):16622-16631. Epub 2008 Apr 18. (PubMed ID: 18424433)
H00008038-M01	ADAM12 monoclonal antibody (M01), clone 1G3	TM4SF3 promotes esophageal carcinoma metastasis via upregulating ADAM12m expression. Zhou Z, Ran YL, Hu H, Pan J, Li ZF, Chen LZ, Sun LC, Peng L, Zhao XL, Yu L, Sun LX, Yang ZH. Clin Exp Metastasis. 2008;25(5):537-48. Epub 2008 Mar 26. (PubMed ID: 18365756)
H00007103-M02	TSPAN8 monoclonal antibody (M02), clone 1E5	
H00150684-M01	COMMD1 monoclonal antibody (M01), clone 2A12	Tumor suppressor ARF promotes non-classic proteasomal independent polyubiquitination of COMMD1. Huang Y, Wu M, Li HY. J Biol Chem. 2008 Apr 25;283(17):11453-60. Epub 2008 Feb 27. (PubMed ID: 18305112)