

## Dynabeads™ Streptavidin を使用した文献リスト(アプリケーション別)

代表的な Dynabeads™ Streptavidin を用いた論文のリストです。これ以外にも様々なアプリケーションで用いられています。



### Sequence-specific capture

- Low-abundance cDNA from libraries
- Mutated sequences
- RNA/DNA infectious agents
- Microsatellite enrichment



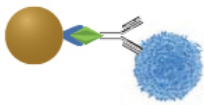
### Immobilized DNA-cDNA

- DNA-/RNA-binding protein isolation
- Solid-phase DNase footprinting
- Solid-phase S1 nuclease mapping
- Subtractive hybridization
- Differential display
- Limes
- 5'RACE
- SAGE®
- TOGA
- RAGET



### Single-stranded template

- DNA-/RNA-binding protein isolation
- Solid-phase DNase footprinting
- Solid-phase S1 nuclease mapping
- Subtractive hybridization
- Differential display
- Limes
- 5'RACE
- SAGE®
- TOGA
- RAGET



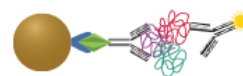
### Cell isolation

- Cell culture
- Flow cytometry
- Cell-cell interactions
- Chemokine and immunological assays
- Bacterial pathogen detection
- Molecular analyses



### Protein purification

- Intact protein complexes
- Active enzymes
- Immunoprecipitation
- Protein interaction studies
- Protein depletion
- SDS-PAGE
- MALDI-TOF



### Immunoassays

- Competitive/noncompetitive
- Homogeneous/heterogeneous
- Sandwich assays



### Biopanning

- Phage display
- Cell-based screening
- SELEX®
- Affibody® selection
- Drug screening

## Automated protocols

- Meng Q. et al. (2001). Automated multiplex assay system for simultaneous detection of hepatitis B virus DNA, hepatitis C virus RNA and human immunodeficiency virus type 1 RNA. *J.Clin.Microbiol.* 39(8):2937–2945.
- Pollock GS. et al. (2001). Effects of early visual experience and diurnal rhythms on BDNF mRNA and protein levels in the visual system, hippocampus and cerebellum. *J. Neurosci.*21(11):3923–3931.
- Miyashiro I. et al. (2001). Molecular strategy for detecting metastatic cancers with use of multiple tumor-specific MAGE-A genes. *Clin.Chem.* 47(3):505–512.
- Stevens SJC. et al. (1999). Monitoring of Epstein-Barr virus DNA load in peripheral blood by quantitative competitive PCR. *J.Clin.Microbiol.* 37:2852–2857.

## Genome analysis

- Fletcher TM. et al. (2002). Structure and dynamic properties of a glucocorticoid receptor-induced chromatin transition. *Mol. Cel. Biol.* 20(17): 6466–6475.
- Hansen-Hagge TE. et al. (2001). Identification of sample-specific sequences in mammalian cDNA and genomic DNA by the novel ligation mediated subtraction (Limes). *Nucl. Acids Res.* 29(4):e20.
- Pradel N. et al. (2002). Genomic subtraction to identify and characterize sequences of Shiga toxin-producing *Escherichia coli* O91:H21. *Appl. Env. Microbiol.* 68(5):2316–2325.
- Heald R. et al. (1996) Self-organization of microtubules into bipolar spindles around artificial chromosomes in *Xenopus* egg extracts. *Nature* 382:420–425.
- Beulieu M. et al. (2001). PCR candidate region mismatch scanning: adaption to quantitative, high-throughput genotyping. *Nucleic Acids Res.* 29(5): 114–1124.

## Single-stranded DNA templates

- von Wintzingerode F. et al. (2002). Base-specific fragmentation of amplified 16S rRNA genes analyzed by mass-spectrometry: A tool for rapid bacterial identification. *PNAS*.99(10):7039–7044.
- Pourmand N. et al. (2002). Multiplex pyrosequencing. *Nucleic Acids Res.* 30(7):e31.
- Lindblad-Toh K. et al. (2000). Large-scale discovery and genotyping of single nucleotide polymorphisms in the mouse. *Nature Genetics.* 24:381–386.
- Dziembowski A. et al. (2001). Analysis of 3' and 5' ends of RNA by solid-phase S1 nuclease mapping. *Anal. Biochem.* 294:87–89.
- Fletcher TM et al. (2002) Structure and dynamic properties of a glucocorticoid receptor-induced chromatin transition. *Mol Cell Biol* 20(17):6466–6475.
- Hansen-Hagge TE et al. (2001) Identification of sample-specific sequences in mammalian cDNA and genomic DNA by the novel ligation-mediated subtraction (Limes). *Nucleic Acids Res* 29(4):e20.
- Beulieu M et al. (2001) PCR candidate region mismatch scanning: adaptation to quantitative, high-throughput genotyping. *Nucleic Acids Res* 29(5):1114–1124.
- Leunissen ME et al. (2009) Switchable self-protected attractions in DNA-functionalized colloids. *Nature Mater* 8:590–595.
- Persson H et al. (2009) The non-coding RNA of the multidrug resistance-linked vault particle encodes multiple regulatory small RNAs. *Nature Cell Biol* 11(10):1268–1271.

## Sequence clean-up

- Fangan BM. et al. (1999) Automated system for purification of dye terminator sequencing products eliminates up-stream purification of templates. *Biotechniques* 26:980–983.
- Bhalerao R. et al. (2003) Gene expression in autumn leaves. *Plant Physiol.* 131:1–13.

## Sequence-specific capture

- Dong SM. et al. (2001). Detection of colorectal cancer in stool with the use of multiple genetic targets. *J Natl Cancer Inst.* 93(11): 858–865.
- Shuber AP. et al. (2002). Accurate, non-invasive detection of *Helicobacter pylori* DNA from stool samples: Potential usefulness for monitoring treatment. *J. Clin. Microbiol.* 40(1):262–264.
- Kornmann B et al. (2001) Analysis of circadian liver gene expression by ADDER, a highly sensitive method for the display of differentially expressed mRNAs. *Nucleic Acids Res* 29(11):e51.
- Schramm G et al. (2000) A simple and reliable 5' –RACE approach. *Nucleic Acids Res* 28(22):e96.
- Mangiapan G. et al. (1996). Sequence capture-PCR improves detection of mycobacterial DNA in clinical specimens. *J. Clin. Microbiol.* 34(5):1209–1215.
- Sutcliffe JG et al. (2000) TOGA: An automated parsing technology for analyzing expression of nearly all genes. *Proc Natl Acad Sci U S A* 97(5):1976–1981.
- Refseth UH. et al. (1997). Hybridization capture of microsatellites directly from genomic DNA. *Electrophoresis.* 18(9):1519–1523.

- Gnirke A et al. (2009) Solution hybrid selection with ultra-long oligonucleotides for massively parallel targeted sequencing. *Nature Biotechnol* 27(2):182–189.

## Gene expression analysis

- Kornmann B. et al. (2001). Analysis of circadian liver gene expression by ADDER, a highly sensitive method for the display of differentially expressed mRNAs. *Nucleic Acids Res.* 29(11). e51
- Laveder P. et al. (2002). A two-step strategy for constructing specifically self-subtracted cDNA libraries. *Nucleic Acids Res.* 30(9): e38
- Schramm G. et al. (2000). A simple and reliable 5' -RACE approach. *Nucl. Acids Res.* 28(22):e96
- Velculescu VE. et al. (1995). Serial analysis of gene expression. *Science.* 270(5235): 484–487.
- Brenner S. et al. (2000). In vitro cloning of complex mixtures of DNA on microbeads: Physical separation of differentially expressed cDNAs. *PNAS.* 97(4): 1665–1670.
- Sutcliffe JG. et al. (2000). TOGA: An automated parsing technology for analyzing expression of nearly all genes. *PNAS.* 97(5): 1976–1981.
- Wang A. et al. (1999). Rapid analysis of gene expression (RAGE) facilitates universal expression profiling. *Nucleic Acids Res.* 27(23): 4609–4618.

## Nucleic acid binding proteins

- Noguchi E et al. (2009) A Crohn's disease-associated NOD2 mutation suppresses transcription of human IL10 by inhibiting activity of the nuclear ribonucleoprotein hnRNP-A1.
- Brodsky AS. and Silver A. (2002). A microbead based system for identifying and characterizing RNA-protein interactions by flow cytometry. *Mol. Cel. Proteomics* 1(12):922–929.
- *Nature Immunol* 10(5):471–479.
- Nordhoff E. et al. (1999). Rapid identification of DNA-binding proteins by mass spectrometry. *Nat. Biotechnol.* 17: 884–888.
- Mehta A et al. (1998). A sequence-specific RNA binding protein complements Apobec-1 to edit apolipo protein B mRNA. *Mol. Cel. Biol.* 18(8):4426–4432.
- Li D et al. (2009) Down-Regulation of MHC Class II Expression through Inhibition of CIITA Transcription by Lytic Transactivator Zta during Epstein-Barr Virus Reactivation. *J Immunol* 182(4):1799–1809.

## Protein purification

- Lehrbach NJ et al. (2009) LIN-28 and the poly(U) polymerase PUP-2 regulate let-7 microRNA processing in *Caenorhabditis elegans*. *Nat Struct Mol Biol* 16(10):1016–1020.
- O' Reilly FM. et al. (2002). FKBP12 modulation of the binding of the skeletal ryanodine receptor onto the II-III loop of the dihydropyridine receptor. *Biophys. J* 82:145–155.
- Chao S-H. and Price DH. (2001). Flavopiridol inactivates P-TEFb and blocks most RNA polymerase II transcription in vivo. *J. Biol. Chem.* 276(34):31793–31799.
- deBaar MP. et al. (1999). Detection of human immunodeficiency virus type I nucleocapsid protein p7 in vitro and in vivo. *J Clin. Microbiol.* 37(1):63–67.

- Girault S. et al. (1996). Coupling of MALDI-TOF mass analysis to the separation of biotinylated peptides by magnetic streptavidin beads. *Anal. Chem.* 68:2122–2126.
- Cook PJ et al. (2009) Tyrosine dephosphorylation of H2AX modulates apoptosis and survival decisions. *Nature* 16(458):591–596.

### Specific cell isolation

- Konishi Y. et al. (2002). Isolation of living neurons from human elderly brains using immunomagnetic sorting DNA-likers system. *Am. J. Pathol.* 161(5):1567–1576.
- Fahrner AM. et al. (2001). Attributes of gd intepithelial lymphocytes as suggested by their transcription profile. *PNAS* 98(18):10261–10266.
- Johansen M. et al. (2002). An investigation of methods for enriching trophoblasts from maternal blood. *Prenatal Diagnosis* 15:921–931.
- Sun W. et al. (2001). Food-borne pathogens. Use of bioluminescent Salmonella for assessing the efficiency of constructed phagebased biosorbent. *J Ind. Microbiol. Biotech.* 27:126–128.

### Biopanning

- Nord K. et al. (2001). Recombinant human factor VIII-specific affinity ligands selected from phage-displayed combinatorial libraries of protein A. *Eur. J. Biochem.* 268:4269–4277.
- Biroccio A. et al. (2002). Selection of RNA aptamers that are specific and high-affinity ligands of the hepatitis C virus RNA-dependent RNA polymerase. *J. Virol.* 76(8):3688–3696.
- Legendre D. et al. (1999). Engineering a regulatable enzyme for homogenous immunoassays. *Nature Biotech.* 17:67–72.
- Lev A. et al. (2002). Isolation and characterization of human recombinant antibodies endowed with the antigen-specific, major histocompatibility complex-restricted specificity of T-cells directed toward the widely expressed tumor T-cell epitopes of the telomerase catalytic subunit. *Cancer Res.* 62(11):3184–3194.
- Cumbers SJ. et al. (2002). Generation and iterative affinity maturation of antibodies in vitro using hypermutating B-cell lines. *Nat. Biotech.* 20(11):1129–1134.
- Demartis S. et al. (1999). A strategy for the isolation of catalytic activities from repertoires of enzymes displayed on phage. *J. Mol. Biol.* 286:617–633.
- Pini A. et al. (1998). Design and use of a phage display library. *J. Biol. Chem.* 273(34):21769–21776.
- Cox JC. et al. (2002). Automated selection of aptamers against protein targets translated in vitro: from gene to aptamer. *Nucleic Acids Res.* 30(20):e108.

## 製品リスト

商品コード	商品名	梱包単位
DB11205	Dynabeads M-280 Streptavidin	2 mL
DB11206	Dynabeads M-280 Streptavidin	10 mL
DB60101	Dynabeads Kilobase BINDER kit	1 kit
DB60210	Dynabeads M-280 Streptavidin	100 mL
DB65001	Dynabeads MyOne Streptavidin C1	2 mL
DB65002	Dynabeads MyOne Streptavidin C1	10 mL
DB65305	Dynabeads M-270 Streptavidin	2 mL
DB65306	Dynabeads M-270 Streptavidin	10 mg/mL
DB65601	Dynabeads MyOne Streptavidin T1	2 mL
DB65602	Dynabeads MyOne Streptavidin T1	10 mL
DB65801	Dynabeads Streptavidin Trial Kit	1 mL x 4

株式会社ベリタス 〒105-0013 東京都港区浜松町 1-10-14 住友東新橋ビル 3 号館 5 階

TEL 03-5776-0078 FAX 03-5776-0076

技術的なお問い合わせは: TEL 03-5776-0040 E-mail [techservice@veritastk.co.jp](mailto:techservice@veritastk.co.jp)