

# Oligo GEMatrix® Mouse Angiogenesis Microarray

HybTube Format Cat. No. [OMM-024](#)  
HybPlate Format Cat. No. [EMM-024](#)

## Description

The Oligo GEMatrix® Mouse Angiogenesis Microarray profiles the expression of 113 key genes involved in modulating the biological processes of angiogenesis. This array includes the growth factors and receptors that play a role in angiogenesis. Also included are the adhesion molecules and matrix proteins involved as well as proteases and their inhibitors. Cytokines and chemokines related to angiogenesis are contained in the array along with transcription factors and other related genes. Through a simple side-by-side hybridization experiment you can determine differential gene expression between your samples.

## Functional Gene Groupings

### Angiogenic Factors:

Growth Factors and Receptors: Adra2b, Agpt, Bai1, Col18a1, Ctgf, Ereg, Fgf1, Fgf2, Fgf6, Fgfr3, Figf, Flt1, Fzd5, Gna13, Il18, Itgav, Jag1, Kdr, Nrp, Pgf, Prok2, Stab1, Tek, Tnfrsf12a, Tnfsf12, Vegfa, Vegfb, Vegfc.

Adhesion Molecules: Angptl3, Col18a1, Ctgf, Eng, Il18, Itgav, Nrp, Stab1, Tek, Thbs1, Tnfrsf12a.

Proteases, Inhibitors and Other Matrix Proteins: Angptl4, Anpep, Col4a3, Mmp19, Serpinf1, Tmprss6.

Transcription Factors and Other Genes: Agpt2, Epas1, Hand2, Mapk14, Pofut1, Smad5, Tbx1, Tbx4, Tnfaip2, Wasf2.

### Other Factors Involved in Angiogenesis:

Cytokines and Chemokines: Ccl11, Ccl2, Csf3, Cxcl1, Cxcl10, Cxcl11, Cxcl2, Cxcl5, Cxcl9, Ifna1, Ifng, Il10, Il12a, Il1b, Il6, Tnf.

Other Growth Factors and Receptors: Edg1, Egf, Ephb4, Hgf, Igf1, Itgb3, Lep, Mdk, Notch4, Nppb, Npr1, Nrp2, Pdgfa, Pdgfb, Plxdc1, Ptn, Tgfa, Tgfb1, Tgfb2, Tgfb3, Tgfbr1, Tnfsf15.

Adhesion Molecules: Cdh5, Itgb3, Lama5, Nrp2, Pecam, Stab2, Thbs2.

Proteases, Inhibitors and Other Matrix Proteins: Ecgf1, F2, Mmp2, Mmp9, Plau, Plg, Timp1, Timp2, Timp3.

Transcription Factors and Other Genes: Akt1, Efna1, Efna2, Efna3, Efnb2, Hif1a, Lect1, Notch4, Nudt6, Pten, Ptgs1, Ptgs2, Sh2d2a, Sphk1, Tnnt1.

## Storage Conditions

**Please check the kit components immediately after you receive this package. SuperArray is only responsible for missing items reported within two (2) business days of receipt.**

GEMatrix microarrays are shipped at ambient temperature enclosed in either a HybTube or ExpressPak Storage Box. They should be stored at -20°C upon receipt.

## References

1. Carmeliet P. (2000) Mechanisms of Angiogenesis and Arteriogenesis. *Nature Medicine* **6**: 389-395.
2. Kerbel K. S. (2000) Tumor Angiogenesis: Past, Present and the Near Future. *Carcinogenesis* **21**: 505-515.
3. Carmeliet P, Jain R K. (2000) Angiogenesis in Cancer and Other Diseases. *Nature* **407**: 249-257.
4. Cines DB, Pollak ES, Buck CA, Loscalzo J, Zimmerman GA, McEver RP, Pober JS, Wick TM, Konkle BA, Schwartz BS, Barnathan ES, McCrae KR, Hug BA, Schmidt AM, Stern DM. (1998) Endothelial Cells in Physiology and in the Pathophysiology of Vascular Disorders. *Blood* **91**: 3527-61.
5. Oettgen P. (2001) Transcriptional Regulation of Vascular Development. *Circ Res*. **89**: 380-8.
6. Peale FV Jr, Gerritsen ME. (2001) Gene Profiling Techniques and their Application in Angiogenesis and Vascular Development. *J Pathol*. **195**: 7-19.
7. Vikkula M, Boon LM, Mulliken JB (2001) Molecular Genetics of Vascular Malformations. *Matrix Biol* **20**: 327-35.