

# Cancer-associated Growth Factor Antibody Sampler Kit



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1 Kit

For Research Use Only. Not for Use in Diagnostic Procedures.

Product Includes	Product #	Quantity	Mol. Wt	Isotype/Source
Basic FGF (E9S5A) Rabbit mAb	98658	20 μΙ	18, 22, 24 kDa	Rabbit IgG
IGF-I (E6B7O) Rabbit mAb	73034	20 μΙ	9, 13, 18, 20 kDa	Rabbit IgG
HGF β (D6S7D) XP <sup>®</sup> Rabbit mAb	52445	20 μΙ	35, 85 kDa	Rabbit IgG
TGF-β (56E4) Rabbit mAb	3709	20 μΙ	12, 45-60 kDa	Rabbit IgG
HBEGF (E5L5T) Rabbit mAb	27450	20 μΙ	18, 21, 27 kDa	Rabbit IgG
MIF (E7T1W) Rabbit mAb	87501	20 μΙ	12 kDa	Rabbit IgG
EREG (D4O5I) Rabbit mAb	12048	20 μΙ	17,19, 30 kDa	Rabbit IgG
Angiopoietin-2 (D200) Antibody	50697	20 μΙ	68, 70 kDa	Rabbit
Anti-rabbit IgG, HRP-linked Antibody	7074	100 µl		Goat
VEGF-A (E9X8Q) Rabbit mAb	50661	20 μΙ	16, 20, 23, 26 kDa	Rabbit IgG

Please visit cellsignal.com for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.

# Description

The Cancer-associated Growth Factor Antibody Sampler Kit provides an economical means of detecting selected growth factors that have been shown to influence tumor development. The kit includes enough antibodies to perform two western blot experiments with each primary antibody.

### Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100  $\mu$ g/mL BSA, 50% glycerol and less than 0.02% sodium azide. Store at  $-20^{\circ}$ C. *Do not aliquot the antibodies.* 

# Background

The tumor microenvironment (TME) is composed of a heterogenous mixture of tumor cells, blood vessels, fibroblasts, stromal cells, infiltrating immune cells, and extracellular matrix (ECM) components, whose collective interactions play important roles in tumor development (1). Cells in the TME secrete a variety of bioactive molecules, including growth factors, cytokines, ECM proteins, and proteases (e.g., MMPs), many of which play critical roles in regulating growth and development of the tumor (2,3). Growth factors play particularly important roles in the TME, serving as cellular messengers that trigger activation or suppression of signaling pathways that govern tumor development, either directly via the tumor cells, or indirectly by way of effects on the TME. Binding of growth factors to their cognate receptors leads to activation of intracellular signaling pathways, resulting in changes in the expression of target genes that regulate cell behavior. Many growth factors (e.g., IGFs, HGFs, FGFs, HBEGF, EREG) are known to promote tumor development by way of direct effects on tumor cells; other growth factors can affect tumor development indirectly, through effects in the TME that influence tumor angiogenesis (e.g., VEGFs, angiopoietins), ECM deposition (TGF-β), or immune cell signaling (e.g., TGF-β, HBEGF, MIF) (4). The diverse and complex role played by growth factors in promoting tumorigenesis makes them important therapeutic targets in oncology, while elucidating the functions of specific growth factors in the context of tumor development remains an active area of cancer research (5).

### **Background References**

- 1. Quail, D.F. and Joyce, J.A. (2013) Nat Med 19, 1423-37.
- 2. Wortzel, I. et al. (2019) Dev Cell 49, 347-360.
- 3. Massagué, J. and Obenauf, A.C. (2016) Nature 529, 298-306.
- 4. Penticuff, J.C. et al. (2019) Nat Rev Urol 16, 318-328.
- 5. Steeg, P.S. (2016) Nat Rev Cancer 16, 201-18.

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