Revision 1

Store at -20C

#79884

# Lung Cancer RTK Antibody Sampler Kit

1 Kit (9 x 20 microliters)

Cell Signaling TECHNOLOGY®

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

| Product Includes | Product # | Quantity | Mol. Wt | Isotype/Source |
|---|---|---|---|---|
| EGF Receptor (D38B1) XP® Rabbit mAb | 4267 | 20 µl | 175 kDa | Rabbit IgG |
| EGF Receptor (L858R Mutant Specific) (43B2) Rabbit mAb | 3197 | 20 µl | 175 kDa | Rabbit IgG |
| EGF Receptor (E746-A750del Specific) (D6B6) XP® Rabbit mAb | 2085 | 20 µl | 175 kDa | Rabbit IgG |
| ALK (D5F3®) XP® Rabbit mAb | 3633 | 20 µl | 220 (ALK), 80 (NPM-ALK), 117 (EML4-ALK v1), 86 (EML4-ALK v3) kDa | Rabbit IgG |
| HER2/ErbB2 (D8F12) XP® Rabbit mAb | 4290 | 20 µl | 185 kDa | Rabbit IgG |
| FGF Receptor 1 (D8E4) XP® Rabbit mAb | 9740 | 20 µl | 92 , 120, 145 kDa | Rabbit IgG |
| ROS1 (D4D6®) Rabbit mAb | 3287 | 20 µl | 258, 110, 50-80 kDa | Rabbit IgG |
| Ret (E1N8X) XP® Rabbit mAb | 14556 | 20 µl | 150, 175 kDa | Rabbit IgG |
| Met (D1C2) XP® Rabbit mAb | 8198 | 20 µl | 140, 170 kDa | Rabbit IgG |
| Anti-rabbit IgG, HRP-linked Antibody | 7074 | 100 µl | | Goat |

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

## Description

The Lung Cancer RTK Antibody Sampler Kit provides an economical means of detecting receptor tyrosine kinases (RTKs) associated with lung cancer. 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 µg/mL BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. *Do not aliquot the antibodies.*

## Background

Lung cancer is the leading cause of cancer-related mortality worldwide (1). It is generally divided into two broad histological classifications: small cell lung cancer (SCLC) and non-small cell lung cancer (NSCLC). NSCLC comprises about 80-85% of all lung cancers. Receptor tyrosine kinases (RTKs) are essential components to cellular signaling pathways and are often overexpressed or otherwise dysregulated by genetic mutations, fusion, or gene amplification (2,3). RTKs are generally activated by receptor specific ligands, leading to autophosphorylation and the subsequent recruitment of downstream signaling proteins. The most common RTK amplification in NSCLC is that for epidermal growth factor receptor (EGFR). Also, two of the most common mutations in EGFR include an exon 19 deletion, E746-A750, and a point mutation L858R (4,5). In addition to EGFR, several other RTKs may become aberrantly activated in NSCLC, including ALK, ROS1, HER2/ErbB2, Met, Ret, FGF Receptor 1, and NTRK (6). Specific tyrosine kinase inhibitors (TKIs) have been part of the arsenal of treating the disease and so analyzing the expression and mutational status of these receptors plays an important role in personalized treatment.

## Background References

1. Sung, H. et al. (2021) *CA Cancer J Clin* 71, 209-249.
2. Reinmuth, N. et al. (2006) *Int J Cancer* 119, 727-34.
3. Du, Z. and Lovly, C.M. (2018) *Mol Cancer* 17, 58.
4. Kosaka, T. et al. (2004) *Cancer Res* 64, 8919-23.
5. Riely, G.J. et al. (2006) *Clin Cancer Res* 12, 7232-41.
6. Rebuzzi, S.E. et al. (2021) *Int J Mol Sci* 22, 2625.

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