

**CD74-NRG1** fusions in lung adenocarcinoma


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Supplementary Figure S1. Sample with amplification and overexpression of ERBB1 (EGFR). A. Copy number segments (red, copy number gain) inferred from SNP 6.0 arrays. B. Expression levels of EGFR in the other 24 EGFR- and KRAS-negative lung adenocarcinomas, and in the EGFR-amplified case inferred from transcriptome sequencing data.
**Supplementary Figure S2. CD74-NRG1 FISH.** NRG1 break-apart FISH (upper panel) and CD74-NRG1 fusion assay FISH (lower panel). Arrows show break-apart signals (upper panel) and fusion signals (lower panel) on zoomed areas.
Supplementary Figure S3. Detection of intracellular CD74 by flow cytometry in H2052. Intracellular (left) and extracellular (right) staining of CD74 in CD74-NRG1 transduced H2052 lung cells, detected by flow cytometry. The % of Max is the number of cells in each bin divided by the number of cells in the bin that contains the largest number of cells.
Supplementary Figure S4. Detection of total- and p-EGFR by immunohistochemistry. Total (left panel) and phosho(right panel)-EGFR staining in the tumor tissue of the index case.
Supplementary Figure S5. Effect of co-transduction of ERBB2+ERBB3 receptors on NIH-3T3 colony formation. Representative pictures of NIH-3T3 cells transduced with different ERBB2 (HER2) and ERBB3 (HER3) receptors combinations.
Supplementary Figure S6. Detection of CD74-NRG1 and CD74-NRG1_ΔEGF by western-blot. Immunoblot of H322 cells transduced with either empty-vector, CD74-NRG1 or CD74-NRG1_ΔEGF (CD74-NRG1_del). Detection of the fusion was assessed with a CD74 antibody to show translation of the truncated CD74-NRG1 fusion (left panel). Schematic representation of the position of the stop codon leading to the truncated CD74-NRG1 (right panel).
**Supplementary Figure S7. Co-culture of Ba/F3_ERBB2-ERBB3 cells with NIH-3T3_CD74-NRG1 cells.**

Ba/F3_ERBB2-ERBB3 cells were co-cultured with NIH-3T3 e.v. (lane 2) or NIH-3T3_CD74-NRG1 (lane 3) by plating the Ba/F3 cells on top of a semi-confluent layer of NIH-3T3 cells. As positive control we used Ba/F3_ERBB2-ERBB3 cells cultured in medium supplemented with recombinant human NRG1 (lane 1).