**Supplement 1. Methodology of Molecular Analyses**

**Tumor PD-L1 Analysis**:

PD-L1 staining was performed utilizing the DAKO FDA-approved PD-L1, 22C3 pharmDxTM protocol using the Dako Automated Link 48 platform. PD-L1 protein expression was determined by using Tumor Proportion Score (TPS), which is the percentage of viable tumor cells showing partial or complete membrane staining at any intensity. The specimen should be considered to have PD-L1 expression if TPS >/=1% and no expression if TPS < 1%

**Tumor Genomic Analyses**:

**EGFR:** Real-time PCR using the FDA Approved *EGFR* Mutation Test v2 was performed and G719X substitution mutations in exon 18, deletion mutations in exon 19, T790M and S768I substitution mutations and insertion mutations in exon 20 and L858Rand L861Q substitution mutations in exon 21 were reported.

**ROS1:** Interphase FISH analysis was performed using a *ROS1* Break Apart FISH Probe. The sample was considered positive if >50% of the first 50 cells scored were positive, and considered negative if <10% cells were positive. If 10-50% of cells were positive, an additional 50 cells were evaluated by a second technologist. The sample was then considered positive if > or = 15% of all 100 cells scored were positive.

**ALK:** Interphase FISH analysis was performed using the *ALK* Break Apart FISH Probe Kit. The sample was considered positive if >50% of the first 50 cells scored were positive, and considered negative if <10% cells were positive. If 10-50% of cells were positive, an additional 50 cells were evaluated by a second technologist. The sample was then considered positive if > or = 15% of all 100 cells scored were positive.