MAYO CLINIC LABORATORIES

Targeted Genes and Methodology Details for NTRK Genes Mutation Analysis

The following applies to NTRKM / NTRK Genes Mutation Analysis, Next-Generation Sequencing. Next-generation sequencing (NGS) is performed to test for the presence of single nucleotide variations, deletions, and insertions in coding regions and intron/exon boundaries of the genes listed. When appropriate, alterations detected are confirmed by an independent reference method, such as Sanger sequencing. Default reportable range offset is +/-2 base pairs around each targeted exon region.

Genomic Build: GRCh37 (hg19) unless otherwise specified

As a result of technical limitations of the assay (including regions of homology, high GC content, and repetitive sequences), there are regions of some genes that cannot be effectively evaluated. Refer to gene regions table below for complete gene coverage information. To verify if a specific region/exon/variant is covered by this assay, contact the laboratory at 800-533-1710.

Gene	Exon	Chromosome	Genomic Start	Genomic Stop	Reference Transcript
NTRK1	Ex1	chr1	156830725	156830940	NM_002529
NTRK1	Ex2	chr1	156834144	156834222	NM_002529
NTRK1	Ex3	chr1	156834518	156834593	NM_002529
NTRK1	Ex4	chr1	156836700	156836772	NM_002529
NTRK1	Ex5	chr1	156837894	156838043	NM_002529
NTRK1	Ex6	chr1	156838295	156838441	NM_002529
NTRK1	Ex7	chr1	156841413	156841549	NM_002529
NTRK1	Ex8	chr1	156843423	156843753	NM_002529
NTRK1	Ex9	chr1	156844173	156844194	NM_002529
NTRK1	Ex10	chr1	156844361	156844420	NM_002529
NTRK1	Ex11	chr1	156844696	156844802	NM_002529
NTRK1	Ex12	chr1	156845310	156845460	NM_002529
NTRK1	Ex13	chr1	156845870	156846004	NM_002529
NTRK1	Ex14	chr1	156846190	156846366	NM_002529
NTRK1	Ex15	chr1	156848912	156849156	NM_002529
NTRK1	Ex16	chr1	156849789	156849951	NM_002529
NTRK1	Ex17	chr1	156851247	156851436	NM_002529
NTRK2	Ex2	chr9	87285662	87285877	NM_006180
NTRK2	Ex3	chr9	87317072	87317150	NM_006180
NTRK2	Ex4	chr9	87317261	87317336	NM_006180
NTRK2	Ex5	chr9	87322757	87322829	NM_006180
NTRK2	Ex6	chr9	87325550	87325708	NM_006180
NTRK2	Ex7	chr9	87338486	87338626	NM_006180
NTRK2	Ex8	chr9	87339137	87339273	NM_006180
NTRK2	Ex9	chr9	87342567	87342876	NM_006180
NTRK2	Ex10	chr9	87356805	87356844	NM_006180
NTRK2	Ex11	chr9	87359886	87359990	NM_006180

Targeted Genes and Methodology Details for NTRK Genes Mutation Analysis (continued)

Gene	Exon	Chromosome	Genomic Start	Genomic Stop	Reference Transcript
NTRK2	Ex12	chr9	87366899	87367002	NM_006180
NTRK2	Ex13	chr9	87475953	87476004	NM_006180
NTRK2	Ex14	chr9	87482156	87482348	NM_006180
NTRK2	Ex15	chr9	87549075	87549209	NM_006180
NTRK2	Ex16	chr9	87563375	87563551	NM_006180
NTRK2	Ex17	chr9	87570196	87570434	NM_006180
NTRK2	Ex18	chr9	87635119	87635281	NM_006180
NTRK2	Ex19	chr9	87636165	87636354	NM_006180
NTRK3	Ex2	chr15	88727454	88727486	NM_001320135
NTRK3	Ex3	chr15	88726647	88726722	NM_001320135
NTRK3	Ex4	chr15	88690564	88690636	NM_001320135
NTRK3	Ex5	chr15	88680633	88680794	NM_001320135
NTRK3	Ex6	chr15	88679696	88679842	NM_001320135
NTRK3	Ex7	chr15	88679128	88679273	NM_001320135
NTRK3	Ex8	chr15	88678330	88678630	NM_001320135
NTRK3	Ex9	chr15	88671940	88671967	NM_001320135
NTRK3	Ex10	chr15	88670391	88670459	NM_001320135
NTRK3	Ex11	chr15	88669500	88669606	NM_001320135
NTRK3	Ex12	chr15	88576086	88576278	NM_001320135
NTRK3	Ex13	chr15	88483852	88483986	NM_001320135
NTRK3	Ex14	chr15	88476241	88476417	NM_001320135
NTRK3	Ex15	chr15	88472420	88472667	NM_001320135
NTRK3	Ex16	chr15	88459775	88459793	NM_001320135