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RASopathy and Noonan Spectrum Disorders (23 Genes)				
Gene	Expanded RASopathy Panel	Inheritance Pattern	Association	Syndromes/Clinical Features
<i>ACTB</i>	X	AD	Strong	Baraitser-Winter syndrome
<i>ACTG1</i>	X	AD	Definitive	Baraitser-Winter syndrome
<i>BRAF</i>	X	AD	Definitive	Cardio-facio-cutaneous (Moderate for Noonan syndrome)
<i>CBL</i>	X	AD	Definitive	Noonan syndrome/Juvenile Myelomonocytic Leukemia
<i>FGD1</i>	X	XLR	Definitive	Aarskog-Scott syndrome/faciodigitogenital syndrome
<i>HRAS</i>	X	AD	Definitive	Costello syndrome
<i>KAT6B</i>	X	AD	Strong	Genitopatellar syndrome/Ohdo syndrome, Say-Barber-Biesecker-Young-Simpson variant
<i>KRAS</i>	X	AD	Definitive	Noonan syndrome (Strong for Cardio-facio-cutaneous)
<i>LZTR1</i>	X	AD	Strong	Noonan syndrome (limited for recessive disease)/schwannomatosis
<i>MAP2K1</i>	X	AD	Definitive	Cardio-facio-cutaneous
<i>MAP2K2</i>	X	AD	Definitive	Cardio-facio-cutaneous
<i>MRAS</i>	X	AD	Limited	Noonan syndrome (w/ hypertrophic cardiomyopathy)
<i>NF1</i>	X	AD	Definitive	Neurofibromatosis 1
<i>NRAS</i>	X	AD	Definitive	Noonan syndrome/Juvenile Myelomonocytic Leukemia
<i>PPP1CB</i>	X	AD	Strong	Noonan syndrome-like disorder with loose anagen hair
<i>PTPN11</i>	X	AD	Definitive	Noonan syndrome/NS with multiple lentigines/Juvenile Myelomonocytic Leukemia/Metachondromatosis
<i>RAF1</i>	X	AD	Definitive	Noonan syndrome (w/ hypertrophic cardiomyopathy)
<i>RRAS</i>	X	AD	Limited	Noonan syndrome
<i>RIT1</i>	X	AD	Definitive	Noonan syndrome (w/ hypertrophic cardiomyopathy)
<i>SHOC2</i>	X	AD	Definitive	Noonan syndrome-like disorder with loose anagen hair
<i>SOS1</i>	X	AD	Definitive	Noonan syndrome
<i>SOS2</i>	X	AD	Moderate	Noonan syndrome
<i>SPRED1</i>	X	AD	Definitive	Legius syndrome