



# Product Specification Summary

## GScan™ Genemer Controls

|                |   |
|----------------|---|
| Catalog Number | 40-2038-01  |
| Product Name   | SCA2 22 repeat (19 CAG + 3 CAA) GScan & Genemer Control DNA   |
| Size           | 500 ng  |
| Description    | SCA2 22 repeat (19 CAG + 3 CAA) GScan™ & Genemer™ Control DNA   |
| Component/Note | SCA2 22 Repeats (19 CAG + 3 CAA) GScan & Genemer Control DNA. Contains 19 CAG & 3 CAA repeats as determined by sequence analysis. |

### Product Description

SCA2 Genemer control DNA containing 19 CAG & 3 CAA repeats. This product is used to run as control DNA in the amplification of CAG repeat region of SCA2 CAG triple repeats. The control DNA spans the CAG repeat region of the ATXN2 gene.

### Background

The autosomal dominant cerebellar ataxias (ADCA) are a heterogeneous group of neurodegenerative disorders characterized by progressive degeneration of the cerebellum, brain stem and spinal cord. Spinocerebellar ataxia (SCA) type 2 is characterized by deterioration in balance and coordination, slow saccadic eye movement, and in some individuals ophthalmoparesis. SCA2 is inherited in an autosomal dominant manner. Offspring of an affected individual have a 50% chance of inheriting the gene mutation. The mutation in all identified SCA genes is the expansion of an unstable CAG repeat encoding a polyglutamine tract. Similar to other trinucleotide repeat disorders, such as Huntington disease and spinal and bulbar muscular atrophy, the SCAs show anticipation and different degrees of expansion in maternal or paternal transmission. There is a direct correlation between the size of the CAG repeat and the onset and severity of the disease. Affected adult individuals have alleles with 36-64 CAG trinucleotide repeats, while infantile- and juvenile-onset SCA2 is associated with expansions of 130 to more than 200 CAG trinucleotide repeats. The SCA2 locus has been mapped to chromosome 12q24. Several SCA genes have been cloned and shown to contain CAG repeats in their coding regions. Spinocerebellar ataxia (SCA) 1, 2, 3, 4 and 6, being assigned to five different chromosomes.

### Genotyping

SCA2 is the only gene known to be associated with SCA2. One hundred percent of individuals affected with SCA2 have an SCA2 CAG trinucleotide repeat expansion. The presence of one abnormal allele is diagnostic. Normal alleles CAG repeats are below 30. DNA analysis can detect 100% of expanded alleles.

Scan the QR Code or visit the following links

Product Information

<http://www.genelink.com/geneprodsite/product.asp?p=795>



Product Manual

[http://www.genelink.com/Literature/ps/M40-2038-01\\_V2.2.pdf](http://www.genelink.com/Literature/ps/M40-2038-01_V2.2.pdf)



Product MSDS

<http://www.genelink.com/Literature/ps/MSDSNH.pdf>



## Related Products

| Product   | Catalog No   | Size  |
|---|--------------|-------|
| GLFX 29 CGG repeat GScan Genemer Control DNA; 25 uL                   | 40-2004-02HX | 25 uL |
| GLFX 16 CGG repeat GScan Genemer Control DNA; 25 uL                   | 40-2004-01HX | 25 uL |
| GLFX 40 CGG repeat GScan Genemer Control DNA; 25 uL                   | 40-2004-03HX | 25 uL |
| GLHD 7 CAG repeat GScan Hex labeled ready to run Control DNA; 25 uL   | 40-2025-05HX | 25 uL |
| GLHD 18 CAG repeat GScan Hex labeled ready to run Control DNA; 25 uL  | 40-2025-01HX | 25 uL |
| GLHD 31 CAG repeat GScan Hex labeled ready to run Control DNA; 25 uL  | 40-2025-07HX | 25 uL |
| GLHD 34 CAG repeat GScan Hex labeled ready to run Control DNA; 25 uL  | 40-2025-02HX | 25 uL |
| GLHD 37 CAG repeat GScan Hex labeled ready to run Control DNA; 25 uL  | 40-2025-08HX | 25 uL |
| GLHD 44 CAG repeat GScan Hex labeled ready to run Control DNA; 25 uL  | 40-2025-03HX | 25 uL |
| GLHD 89 CAG repeat GScan Hex labeled ready to run Control DNA; 25 uL  | 40-2025-04HX | 25 uL |
| GLHD 49 CAG repeat Scan Hex labeled ready to run Control DNA; 25 uL   | 40-2025-09HX | 25 uL |
| GLHD 116 CAG repeat GScan Genemer Control DNA; 25 uL                  | 40-2025-06HX | 25 uL |
| GLHD 134 CAG repeat GScan Hex labeled ready to run Control DNA; 25 uL | 40-2025-61HX | 25 uL |
| GLHD 182 CAG repeat GScan Hex labeled ready to run Control DNA; 25 uL | 40-2025-62HX | 25 uL |
| GLDM 12 CTG repeat GScan Genemer Control DNA; 25 uL                   | 40-2026-01HX | 25 uL |