

Supplementary Table S1. Genes encoding sugar transporters and those involved in sugar metabolism identified in the grape genome. In the table are reported the ID associated with the transcript name for the version 12X (at EMBL FN597015-FN597047, release 102), and version 12XC3 ([296]: to make easier the identification of genes mentioned in Figure 1 (see references in the last column). For each gene the Vitis annotation (12X version), and best hits against the Arabidopsis genome sequences (TAIR, <https://www.arabidopsis.org/Blast/>) are also reported.

Gene ID	transcriptName 12X	Transcript Name 12xC3	Vitis annotation	Best-hit-arabi-name	arabi-symbol	arabi-defline\	Reference
<i>VvHT1</i>	GSVIVT01003181001	Vitvi10g00358		AT1G11260.1	ATSTP1,STP1	sugar transporter 1\	[74,75]
<i>VvHT2</i>	GSVIVT01009024001	Vitvi18g00397	SUGAR TRANSPORT PROTEIN 5	AT1G34580.1		Major facilitator superfamily protein\	[74]
<i>VvHT3</i>	GSVIVT01001036001	Vitvi11g00611	SUGAR TRANSPORT PROTEIN 7	AT4G02050.1	STP7	sugar transporter protein 7\	[74]
<i>VvSUC11</i>	GSVIVT01009254001	Vitvi18g00584	solute carrier family 45, member 1/2/4 (SLC45A1_2_4)	AT1G09960.1	ATSUC4,ATSUT4,SUC4,SUT4	sucrose transporter 4\	[74,120]
<i>VvSUC12</i>	GSVIVT01020031001	Vitvi01g00959	SUCROSE TRANSPORT PROTEIN SUC3	AT2G02860.1	ATSUC3,ATSUT2,SUC3,SUT2	sucrose transporter 2\	[74,120]
<i>VvSUC27</i>	GSVIVT01034886001	Vitvi18g01315	SUCROSE TRANSPORT PROTEIN SUC1-RELATED	AT1G71890.1	ATSUC5,SUC5	Major facilitator superfamily protein\	[74,120]
<i>VvTM1/VvHT6</i>	GSVIVT01013414001	Vitvi18g00056	Sugar (and other) transporter (Sugar_tr) // Major Facilitator Superfamily (MFS_1)	AT4G35300.4	TMT2	tonoplast monosaccharide transporter2\	[74]

<i>VvMT2</i>	GSVIVT01023868001	Vitvi03g00247	MONOSACCHARID E-SENSING PROTEIN	AT4G35300.1	TMT2	tonoplast monosaccharide transporter2\	[2,74]
<i>VvSWEET10</i>	GSVIVT01008595001	Vitvi17g00070	BIDIRECTIONAL SUGAR TRANSPORTER SWEET10	AT5G50790.1		Nodulin MtN3 family protein\	[76,78]
<i>VsSWEET15</i>	GSVIVT01000938001	Vitvi01g01719	BIDIRECTIONAL SUGAR TRANSPORTER SWEET10	AT5G13170.1	SAG29	senescence- associated gene 29	[76,78]
<i>VvSuSy3</i>	GSVIVT01028043001	Vitvi07g00353	SUCROSE SYNTHASE 2	AT4G02280.1	ATSUS3,SUS3	sucrose synthase 3\	[77]
<i>VvSuSy4</i>	GSVIVT01015018001	Vitvi11g00030	SUCROSE SYNTHASE 1- RELATED	AT3G43190.1	ATSUS4,SUS4	sucrose synthase 4\	[77]
<i>SPS</i>	GSVIVT01035882001	Vitvi04g00508	SF404 - GLYCOSYLTRANSF ERASE // SUBFAMILY NOT NAMED	AT5G11110.1	ATSPS2F,KNS2 ,SPS1,SPS2F	sucrose phosphate synthase 2F\	[77]
<i>VvNI1</i>	GSVIVT01024105001	Vitvi03g00088	Beta- fructofuranosidase / Saccharase	AT4G34860.2		Plant neutral invertase family protein\	[77,79]
<i>VvNI2</i>	GSVIVT01034944001	Vitvi05g00164	Alkaline and neutral invertase (Glyco_hydro_100)	AT3G06500.1		Plant neutral invertase family protein\	[79]
<i>VvNI3</i>	GSVIVT01031267001	Vitvi14g00070	Alkaline and neutral invertase (Glyco_hydro_100)	AT1G56560.1		Plant neutral invertase family protein\	[79]

<i>VvNI4</i>	GSVIVT01031374001	Vitvi06g01427	Alkaline and neutral invertase (Glyco_hydro_100)	AT5G22510.1	At-A/N-InvE,INV-E	alkaline/neutral invertase \	[79]
<i>VvCWAI</i>	GSVIVT01016869001	Vitvi09g00193		AT3G13790.2	ATBFRUCT1,ATCWINV1	Glycosyl hydrolases family 32 protein \	[75,77]
<i>VvAI1</i>	GSVIVT01018625001	Vitvi06g01427	beta-fructofuranosidase (E3.2.1.26, sacA)	AT1G62660.1		Glycosyl hydrolases family 32 protein \	[75,77]
<i>VvAI2</i>	GSVIVT0100127200	Vitvi02g00512	ACID BETA-FRUCTOFURANOSIDASE 3, VACUOLAR-RELATED	AT1G12240.1	ATBETAFRUCT4,VAC-INV	Glycosyl hydrolases family 32 protein \	[75,77]