

SUPPLEMENTARY MATERIALS

to the article by L.A. Elkonin, G.A. Gerashchenkov, N.V. Borisenko, S.Kh. Sarsenova, V.M. Panin
 "Study of the progeny of sorghum mutants obtained using the CRISPR/Cas9 genetic construct
 directed at inducing mutations in the α -kafirin *k1C5* gene"

Table S1. Quantitative analysis of SDS-PAGE of total flour proteins from kernels of sorghum mutants obtained by using the p2C vector for site-directed mutagenesis of the *k1C5* gene

Plant, endosperm type	Line ¹	Estimated protein quantity ²	Percent of undigested protein ³	Digestibility, %	Mean, % ⁴
Figure 3a (Experiment 09/03-2)					
Avance, ordinary vitreous endosperm	1 (c)	7449503			
	2 (p)	2712527	36.4	63.6	61.2 a
	3 (p)	3077580	41.3	58.7	
RNAi-mutant, flouy endosperm	4 (c)	7044999			
	5 (p)	737806	10.5	89.5	89.6 c
	6 (p)	730825	10.4	89.6	
197-9/23, ordinary vitreous endosperm	7 (c)	7492140			
	8 (p)	2458438	32.8	67.2	68.6 b
	9 (p)	2256694	30.1	69.9	
197-9/23, flouy or thin vitreous endosperm	10 (c)	8694544			
	11 (p)	545285	6.3	93.7	92.9 c
	12 (p)	687925	7.9	92.1	
F					
LSD ₀₅					7.2
Figure 3b (Experiment 08/13-1)					
Avance, ordinary vitreous endosperm	1 (c)	5025418			
	2 (p)	2035930	40.5	59.5	61.2 a
	3 (p)	1703497	33.9	66.1	
RNAi-mutant, flouy endosperm	4 (c)	7774986			
	5 (p)	596929	7.7	92.3	90.8 c
	6 (p)	842557	10.8	89.2	
195-3/23, ordinary vitreous endosperm	7 (c)	8248176			
	8 (p)	2054016	24.9	75.1	76.1 b
	9 (p)	1896063	23.0	77.0	
195-3/23, flouy or thin vitreous endosperm	10 (c)	7217360			
	11 (p)	1889594	26.2	73.8	73.9 b
	12 (p)	1880021	26.0	74.0	
F					
LSD ₀₅					6.2
Experiment 08/05-1					
Avance, ordinary vitreous endosperm	1 (c)	6659204			
	2 (p)	3350923	50.3	49.7	54.0 a
	3 (p)	2821652	42.4	57.6	
RNAi-mutant, flouy endosperm	4 (c)	9493392			
	5 (p)	1630401	17.2	82.8	82.1 c
	6 (p)	1771103	18.7	81.3	
208-2/23, ordinary vitreous endosperm	7 (c)	6802076			
	8 (p)	1956445	28.8	71.2	73.0 b
	9 (p)	1746552	25.7	74.7	
208-2/23, flouy or blurred vitreous endosperm	10 (c)	8995247			
	11 (p)	1887962	21.0	79.0	79.5 bc
	12 (p)	1803056	20.0	80.0	
F					
LSD ₀₅					7.9

Table S1 (end)

Plant, endosperm type	Line ¹	Estimated protein quantity ²	Percent of undigested protein ³	Digestibility, %	Mean, % ⁴
Experiment 08/05-2					
Avance, ordinary vitreous endosperm	1 (c)	6156551			
	2 (p)	2607517	42.4	57.6	59.6 a
	3 (p)	2366039	38.4	61.6	
4 (c)	10097727				
RNAi-mutant, flouly endosperm	5 (p)	1350517	13.3	86.7	87.0 b
	6 (p)	1292918	12.8	87.2	
	7 (c)	6978968			
208-11/23, ordinary vitreous endosperm	8 (p)	1134401	16.3	83.7	83.7 b
	10 (c)	5688903			
208-11/23, flouly or blurred vitreous endosperm	11 (p)	896683	15.8	84.2	84.1 b
	12 (p)		16.1	83.9	
	F				
LSD ₀₅					4.2
Experiment 08/13-2					
Avance, ordinary vitreous endosperm	1 (c)	4266367			
	2 (p)	2135734	50.1	49.9	47.3 a
	3 (p)	2365650	55.4	44.6	
4 (c)	3770663				
RNAi-mutant, flouly endosperm	5 (p)	505858	13.4	86.6	85.0 d
	6 (p)	629749	16.7	83.3	
	7 (c)	4347395			
195-4/23, ordinary vitreous endosperm	8 (p)	1218755	28.0	72.0	71.3 b
	9 (p)	1278449	29.4	70.6	
	10 (c)	3100579			
195-4/23, flouly or thin vitreous endosperm	11 (p)	624752	20.1	79.9	79.8 c
	12 (p)	636788	20.5	79.5	
	F				
LSD ₀₅					4.9
Experiment 09/05-1					
Avance, ordinary vitreous endosperm	1(c)	6381572			
	2 (p)	1811997	28.4	71.6	71.0 b
	3(p)	1890678	29.6	70.4	
4 (c)	6284466				
RNAi-mutant, flouly endosperm	5 (p)	507031	8.1	91.9	92.1 d
	6 (c)	7050305			
	7 (p)	1668596	23.7	76.3	
197-11/23, thin vitreous endosperm	8 (p)	1567444	22.2	77.8	77.1 c
	9 (c)	7127359			
	10 (p)	1544040	21.7	78.3	
197-11/23, flouly endosperm	12 (c)	6264888			78.5 c
	13 (p)	2193915	35.0	65.0	
	14(p)	2165596	34.6	65.4	
F					136.001*
LSD ₀₅					4.1

¹ c, control sample (without pepsin treatment); p, pepsin treatment.² Values are expressed as the number of dots (intensity × mm²).³ Percent from estimated protein quantity in undigested sample.⁴ Values followed by different letters differ at $p < 0.05$ by one-way ANOVA with Duncan's multiple range test.* $p < 0.05$.