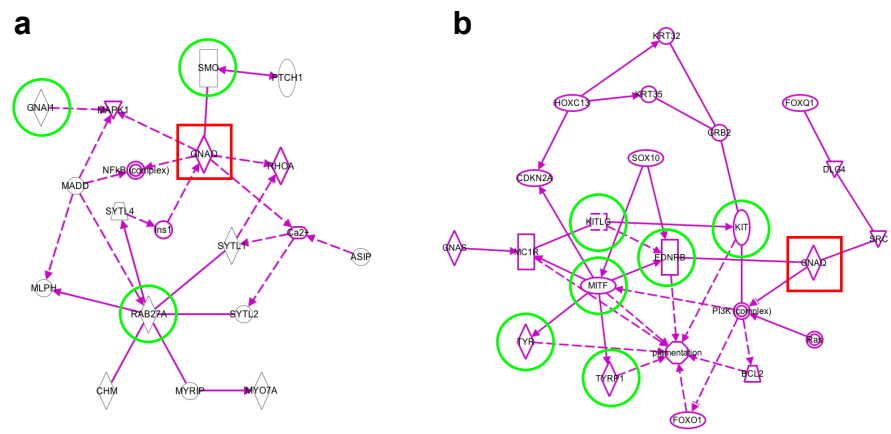


1 **Supplementary Figure 1.** Ingenuity Pathway Analysis© ([www.ingenuity.com](http://www.ingenuity.com)) of *Gnaq*  
2 interactions. (A) Interactions between *Gnaq* and associated factors during melanosome  
3 development. *Gnaq* (red rectangle) with well known regulators of melanosome development  
4 circled in green. (B) *Gnaq* associated factors in skin pigmentation. *Gnaq* (red rectangle) with  
5 well known regulators of skin pigmentation levels circled in green.

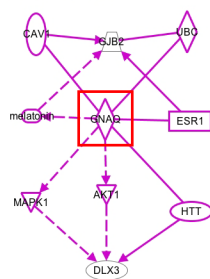
6 **Supplementary Figure 2.** Ingenuity Pathway Analysis© ([www.ingenuity.com](http://www.ingenuity.com)) of *Gnaq*  
7 interactions during epithelial barrier formation. *Gnaq* is highlighted by the red rectangle

8

9



**Supplementary Figure 1. Ingenuity Pathway Analysis© (www.ingenuity.com) of *Gnaq* interactions.**  
(A) Interactions between *Gnaq* and associated factors during melanosome development. *Gnaq* (red rectangle) with well known regulators of melanosome development circled in green.  
(B) *Gnaq* associated factors in skin pigmentation. *Gnaq* (red rectangle) with well known regulators of skin pigmentation levels circled in green.



**Supplementary Figure 2. Ingenuity Pathway Analysis® ([www.ingenuity.com](http://www.ingenuity.com)) of *Gnaq* interactions during epithelial barrier formation. *Gnaq* is highlighted by the red rectangle.**