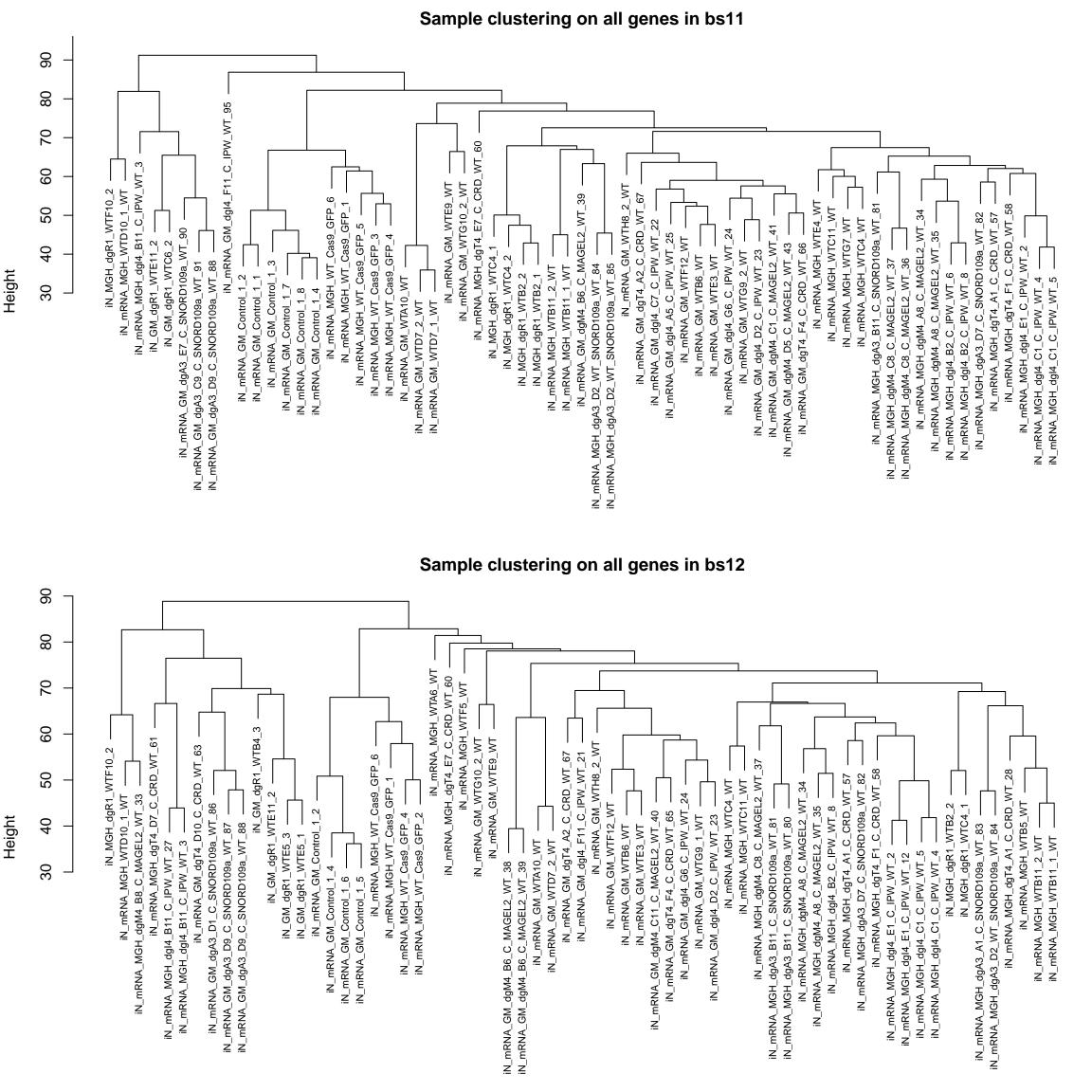


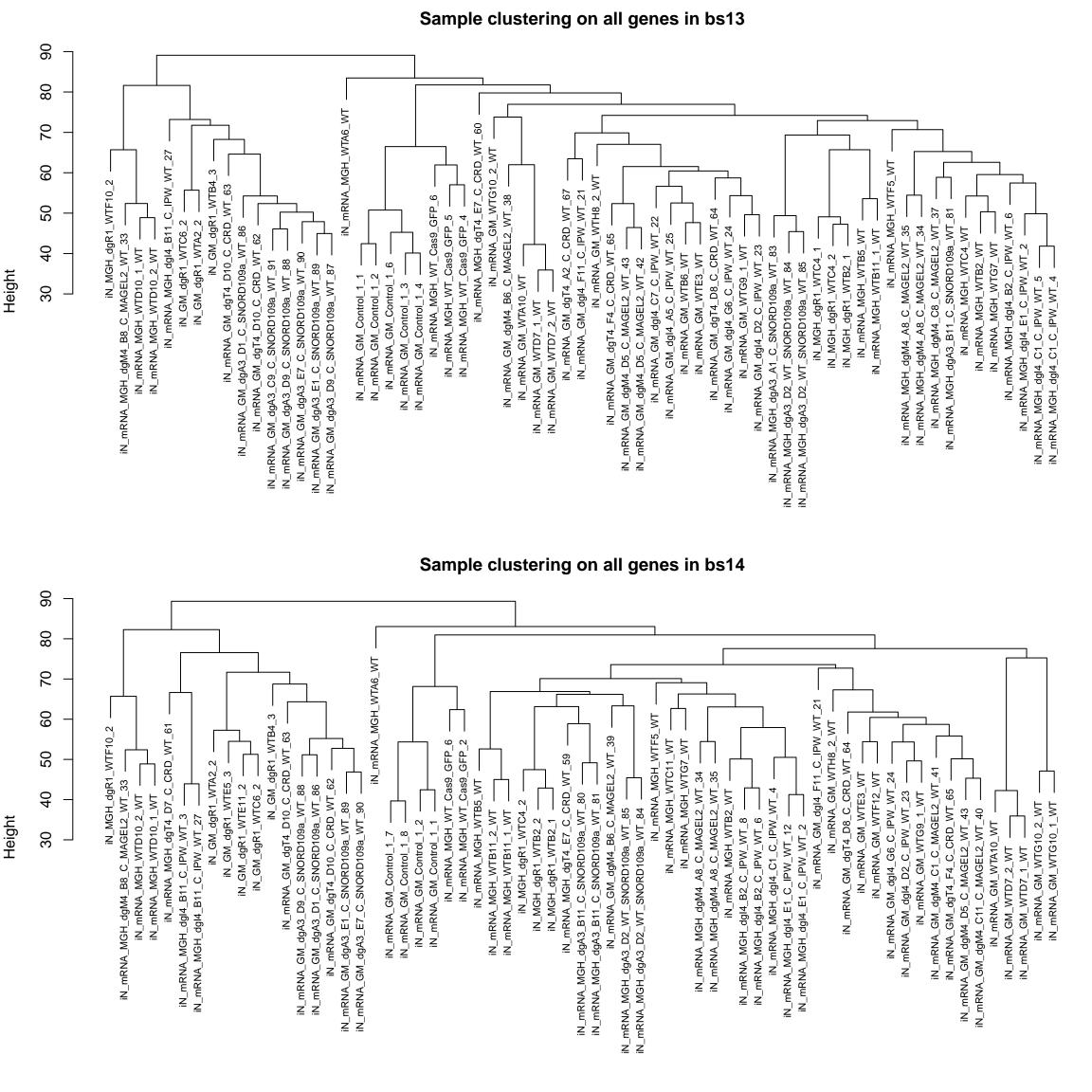
# Sample clustering on all genes in bs5 90 80 20 IN\_mRNA\_GM\_WTG10\_1\_WT iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_60 9 $in\_mRNA\_MGH\_dgl4\_B11\_C\_IPW\_WT\_3$ iN\_mRNA\_MGH\_dgT4\_D7\_C\_CRD\_WT\_61 iN\_GM\_dgR1\_WTB4\_3 iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_34 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_63 IN MGH dgR1 WTF10\_1 IN\_mRNA\_GM\_dgT4\_A2\_C\_CRD\_WT\_67 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_6 iN\_mRNA\_MGH\_dgA3\_D7\_C\_SNORD109a\_WT\_82 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_81 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_1 iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_28 50 iN\_mRNA\_GM\_dgM4\_C1\_C\_MAGEL2\_WT\_41 IN\_mRNA\_MGH\_WTC4\_WT IN\_mRNA\_MGH\_WTG7\_WT IN\_mRNA\_MGH\_WT\_Cas9\_GFP\_5 42 iN\_mRNA\_GM\_dgI4\_C7\_C\_IPW\_WT\_22 iN\_GM\_dgR1\_WTE5\_1 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_3 iN\_mRNA\_GM\_WTF12\_WT iN\_GM\_dgR1\_WTA2\_2 iN\_mRNA\_MGH\_dgM4\_B8\_C\_MAGEL2\_WT\_33 iN\_mRNA\_MGH\_WTD10\_1\_WT iN\_mRNA\_MGH\_WTD10\_2\_WT — Height IN MRNA MGH WTB5 WT IN\_mRNA\_GM\_WTE3\_WT iN\_mRNA\_GM\_dgl4\_A5\_C\_IPW\_WT\_25 IN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_ iN\_mRNA\_GM\_dgM4\_C11\_C\_MAGEL2\_WT\_40 IN\_mRNA\_MGH\_WT\_Cas9\_GFP\_4 IN\_mRNA\_MGH\_WT\_Cas9\_GFP\_2 IN\_mRNA\_MGH\_WTB2\_WT iN\_mRNA\_MGH\_dgI4\_C1\_C\_IPW\_WT\_5 iN\_mRNA\_MGH\_dgI4\_E1\_C\_IPW\_WT\_2 4 iN\_MGH\_dgR1\_WTC4\_1 IN\_MGH\_dgR1\_WTC4\_2 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_37 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_36 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_88 iN\_mRNA\_GM\_dgA3\_C9\_C\_SNORD109a\_WT\_91 N\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_85 N\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_84 iN\_mRNA\_GM\_dgA3\_E1\_C\_SNORD109a\_WT\_89 IN\_mRNA\_MGH\_WTB11\_1\_WT iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_87 IN\_mRNA\_MGH\_WTB11\_2\_WT iN\_mRNA\_MGH\_dgl4\_B2\_C\_IPW\_WT\_6 iN\_mRNA\_MGH\_dgI4\_B2\_C\_IPW\_WT\_8 iN\_mRNA\_GM\_Control\_1\_1 iN\_mRNA\_GM\_Control\_1\_2 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_65 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_66 iN\_mRNA\_GM\_Control\_1\_6 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_38 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_39 iN\_mRNA\_GM\_Control\_1\_4 iN\_mRNA\_GM\_Control\_1\_8 30 iN\_mRNA\_GM\_WTG9\_1\_WT iN\_mRNA\_GM\_WTG9\_2\_WT IN\_mRNA\_GM\_WTD7\_2\_WT iN\_mRNA\_GM\_dgI4\_F11\_C\_IPW\_WT\_95 iN\_mRNA\_GM\_dgl4\_F11\_C\_IPW\_WT\_21 IN\_mRNA\_GM\_WTD7\_1\_WT Sample clustering on all genes in bs6 8 8 2 IN\_mRNA\_GM\_WTG10\_1\_WT IN\_mRNA\_MGH\_WTF5\_WT iN\_mRNA\_MGH\_dgI4\_B11\_C\_IPW\_WT\_27 9 iN\_GM\_dgR1\_WTB4\_3 IN\_mRNA\_GM\_dgT4\_A2\_C\_CRD\_WT\_67 iN\_mRNA\_GM\_dgl4\_F11\_C\_IPW\_WT\_21 IN MRNA MGH WT Cas9 GFP 6 iN\_mRNA\_MGH\_dgA3\_D7\_C\_SNORD109a\_WT\_82 IN MRNA MGH WTA6 WT iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_36 iN\_mRNA\_MGH\_dgT4\_F1\_C\_CRD\_WT\_58 iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_28 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_66 50 iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_59 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_81 iN\_mRNA\_MGH\_dgI4\_B2\_C\_IPW\_WT\_6 iN\_mRNA\_GM\_WTG9\_1\_WT IN\_mRNA\_MGH\_WT\_Cas9\_GFP\_5 IN\_GM\_dgR1\_WTA2\_2 IN\_mRNA\_MGH\_WTC4\_WT IN\_mRNA\_GM\_WTE3\_WT iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_3 IN\_mRNA\_GM\_WTF12\_WT iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_34 iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_35 iN\_MGH\_dgR1\_WTF10\_2 IN\_mRNA\_MGH\_WTB5\_WT IN\_MGH\_dgR1\_WTF10\_1 iN\_mRNA\_GM\_dgA3\_E7\_C\_SNORD109a\_WT\_90 iN\_GM\_dgR1\_WTC6\_2 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_4 IN\_mRNA\_MGH\_WTB2\_WT IN\_mRNA\_MGH\_WTE4\_WT Height IN\_mRNA\_MGH\_WT\_Cas9\_GFP\_2 iN\_mRNA\_MGH\_dgl4\_E1\_C\_IPW\_WT\_12 iN\_MGH\_dgR1\_WTC4\_1 iN\_mRNA\_MGH\_dgA3\_A1\_C\_SNORD109a\_WT\_83 4 IN\_mRNA\_MGH\_dgM4\_B8\_C\_MAGEL2\_WT\_ IN\_mRNA\_MGH\_WTD10\_2\_WT IN\_mRNA\_MGH\_WTD10\_1\_WT iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_87 iN\_MGH\_dgR1\_WTC4\_2 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_88 iN\_mRNA\_GM\_dgA3\_C9\_C\_SNORD109a\_WT\_91 iN\_GM\_dgR1\_WTE5\_3 IN\_GM\_dgR1\_WTE5\_1 iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_85 iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_84 IN\_mRNA\_MGH\_WTB11\_1\_WT IN\_mRNA\_MGH\_WTB11\_2\_WT iN\_MGH\_dgR1\_WTB2\_2 iN\_mRNA\_GM\_Control\_1\_1 iN\_mRNA\_GM\_Control\_1\_2 IN\_mRNA\_MGH\_dgI4\_C1\_C\_IPW\_WT\_4 iN\_MGH\_dgR1\_WTB2\_1 iN\_mRNA\_MGH\_dgI4\_C1\_C\_IPW\_WT\_5 iN\_mRNA\_GM\_Control\_1\_7 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_39 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_38 IN\_mRNA\_GM\_WTA10\_WT iN\_mRNA\_GM\_WTD7\_1\_WT 30 iN\_mRNA\_GM\_Control\_1\_8 iN\_mRNA\_GM\_Control\_1\_4 IN\_mRNA\_GM\_Control\_1\_6 iN\_mRNA\_GM\_Control\_1\_5

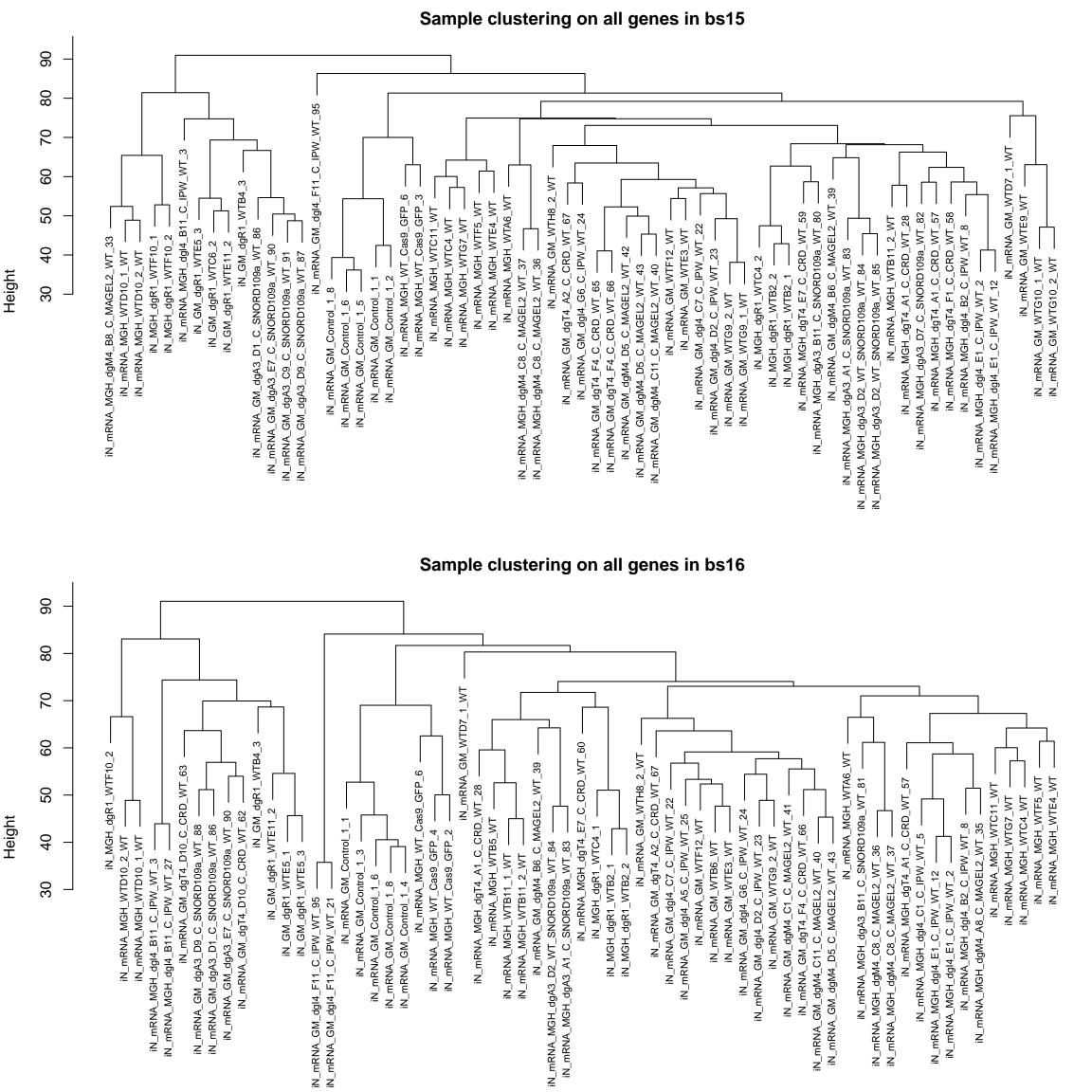
#### 8 80 20 9 iN\_GM\_dgR1\_WTB4\_3 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_63 iN\_mRNA\_MGH\_dgT4\_D7\_C\_CRD\_WT\_61 iN\_mRNA\_MGH\_dgI4\_B11\_C\_IPW\_WT\_27 iN\_mRNA\_MGH\_dgA3\_A1\_C\_SNORD109a\_WT\_83 iN\_mRNA\_MGH\_dgA3\_D7\_C\_SNORD109a\_WT\_82 IN\_mRNA\_MGH\_WTC11\_WT IN mRNA MGH WT Cas9 GFP 6 $iN\_mRNA\_GM\_dgT4\_D8\_C\_CRD\_WT\_64$ IN\_mRNA\_MGH\_WTG7\_WT IN\_mRNA\_MGH\_WTE4\_WT IN\_mRNA\_MGH\_dgM4\_B8\_C\_MAGEL2\_WT\_ iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_28 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_1 50 iN\_mRNA\_MGH\_dgI4\_B2\_C\_IPW\_WT\_6 iN\_mRNA\_GM\_dgM4\_C1\_C\_MAGEL2\_WT\_41 IN\_GM\_dgR1\_WTA2\_2 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_2 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_5 iN\_GM\_dgR1\_WTE5\_3 iN\_mRNA\_GM\_dgA3\_D1\_C\_SNORD109a\_WT\_86 iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_35 IN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_34 iN\_mRNA\_GM\_dgl4\_C7\_C\_IPW\_WT\_22 IN\_mRNA\_MGH\_WTB11\_1\_WT IN\_mRNA\_MGH\_WTB5\_WT iN\_MGH\_dgR1\_WTF10\_2 iN\_MGH\_dgR1\_WTF10\_1 Height iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_62 iN\_GM\_dgR1\_WTC6\_2 iN\_mRNA\_GM\_Control\_1\_2 IN\_GM\_dgR1\_WTE11\_2 iN\_mRNA\_MGH\_dgl4\_E1\_C\_IPW\_WT\_12 iN\_mRNA\_MGH\_dgI4\_C1\_C\_IPW\_WT\_4 iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_42 iN\_mRNA\_GM\_dgl4\_D2\_C\_IPW\_WT\_23 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_80 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_81 4 iN\_mRNA\_GM\_dgA3\_E7\_C\_SNORD109a\_WT\_90 iN\_MGH\_dgR1\_WTB2\_2 IN\_mRNA\_GM\_WTB6\_WT iN\_MGH\_dgR1\_WTC4\_2 IN\_mRNA\_GM\_WTE3\_WT iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_36 iN\_mRNA\_GM\_dgA3\_C9\_C\_SNORD109a\_WT\_91 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_88 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_37 iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_43 N\_mRNA\_GM\_dgM4\_C11\_C\_MAGEL2\_WT\_40 iN\_mRNA\_GM\_dgA3\_E1\_C\_SNORD109a\_WT\_89 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_87 IN\_mRNA\_GM\_WTA10\_WT IN\_mRNA\_GM\_WTD7\_2\_WT iN\_mRNA\_GM\_Control\_1\_6 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_66 IN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_65 IN mRNA GM Control 1 7 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_38 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_39 iN\_mRNA\_GM\_Control\_1\_4 iN\_mRNA\_GM\_Control\_1\_8 30 iN\_mRNA\_GM\_WTG9\_2\_WT iN\_mRNA\_GM\_WTG9\_1\_WT iN\_mRNA\_GM\_dgI4\_F11\_C\_IPW\_WT\_95 iN\_mRNA\_GM\_dgI4\_F11\_C\_IPW\_WT\_21 Sample clustering on all genes in bs8 8 80 IN\_mRNA\_MGH\_WTA6\_WT 2 iN\_mRNA\_MGH\_dgl4\_B11\_C\_IPW\_WT\_3 8 IN\_mRNA\_GM\_WTH8\_2\_WT iN\_MGH\_dgR1\_WTF10\_2 iN\_mRNA\_GM\_dgT4\_A2\_C\_CRD\_WT\_67 iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_42 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_63 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_38 iN\_mRNA\_MGH\_dgA3\_D7\_C\_SNORD109a\_WT\_82 IN\_mRNA\_MGH\_WTE4\_WT iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_81 iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_28 IN\_mRNA\_MGH\_WTB11\_1\_WT 20 IN\_mRNA\_MGH\_WTC11\_WT iN\_mRNA\_MGH\_WTC4\_WT iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_34 IN\_mRNA\_MGH\_WTG7\_WT iN\_GM\_dgR1\_WTA2\_2 iN\_mRNA\_GM\_dgM4\_C1\_C\_MAGEL2\_WT\_41 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_3 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_66 iN\_mRNA\_GM\_dgT4\_D8\_C\_CRD\_WT\_64 iN\_GM\_dgR1\_WTE11\_2 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_62 iN\_mRNA\_GM\_dgl4\_A5\_C\_IPW\_WT\_25 iN\_mRNA\_GM\_WTF12\_WT iN\_mRNA\_MGH\_dgM4\_B8\_C\_MAGEL2\_WT\_33 iN\_mRNA\_MGH\_dgl4\_B2\_C\_IPW\_WT\_8 iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_35 iN\_GM\_dgR1\_WTC6\_2 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_88 iN\_mRNA\_GM\_dgA3\_E1\_C\_SNORD109a\_WT\_89 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_2 40 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_4 iN\_mRNA\_GM\_dgl4\_D2\_C\_IPW\_WT\_23 iN\_mRNA\_MGH\_dgI4\_C1\_C\_IPW\_WT\_5 IN\_MGH\_dgR1\_WTC4\_1 iN\_mRNA\_GM\_WTG9\_1\_WT IN\_mRNA\_MGH\_WTD10\_2\_WT IN\_mRNA\_MGH\_WTD10\_1\_WT in\_mRNA\_MGH\_dgA3\_A1\_C\_SNORD109a\_WT\_83 iN\_mRNA\_GM\_Control\_1\_3 iN\_MGH\_dgR1\_WTC4\_2 iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_84 IN\_mRNA\_GM\_WTE3\_WT IN\_mRNA\_GM\_WTB6\_WT iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_37 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_36 IN MRNA GM WTG10 2 WT IN\_mRNA\_GM\_WTG10\_1\_WT IN\_GM\_dgR1\_WTE5\_1 iN\_GM\_dgR1\_WTE5\_3 Height iN\_MGH\_dgR1\_WTB2\_1 IN\_MGH\_dgR1\_WTB2\_2 iN\_mRNA\_GM\_Control\_1\_2 iN\_mRNA\_GM\_Control\_1\_1 IN\_mRNA\_GM\_WTA10\_WT IN\_mRNA\_MGH\_dgl4\_E1\_C\_IPW\_WT\_12 iN\_mRNA\_MGH\_dgl4\_E1\_C\_IPW\_WT\_2 iN\_mRNA\_GM\_Control\_1\_6 30 iN\_mRNA\_GM\_Control\_1\_7 IN\_mRNA\_GM\_Control\_1\_8 iN\_mRNA\_GM\_Control\_1\_4 IN\_mRNA\_GM\_WTD7\_1\_WT IN\_mRNA\_GM\_WTD7\_2\_WT

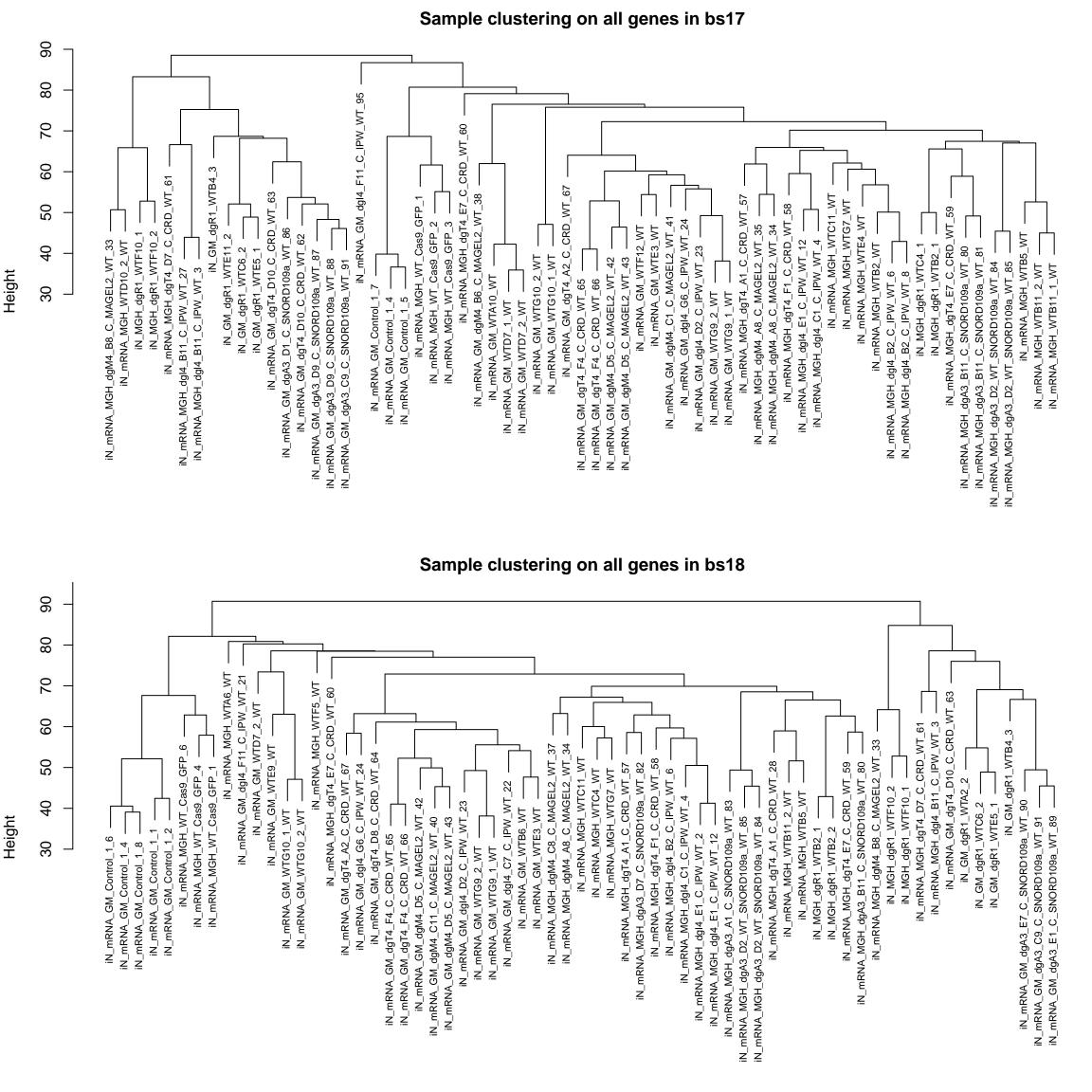
Sample clustering on all genes in bs7

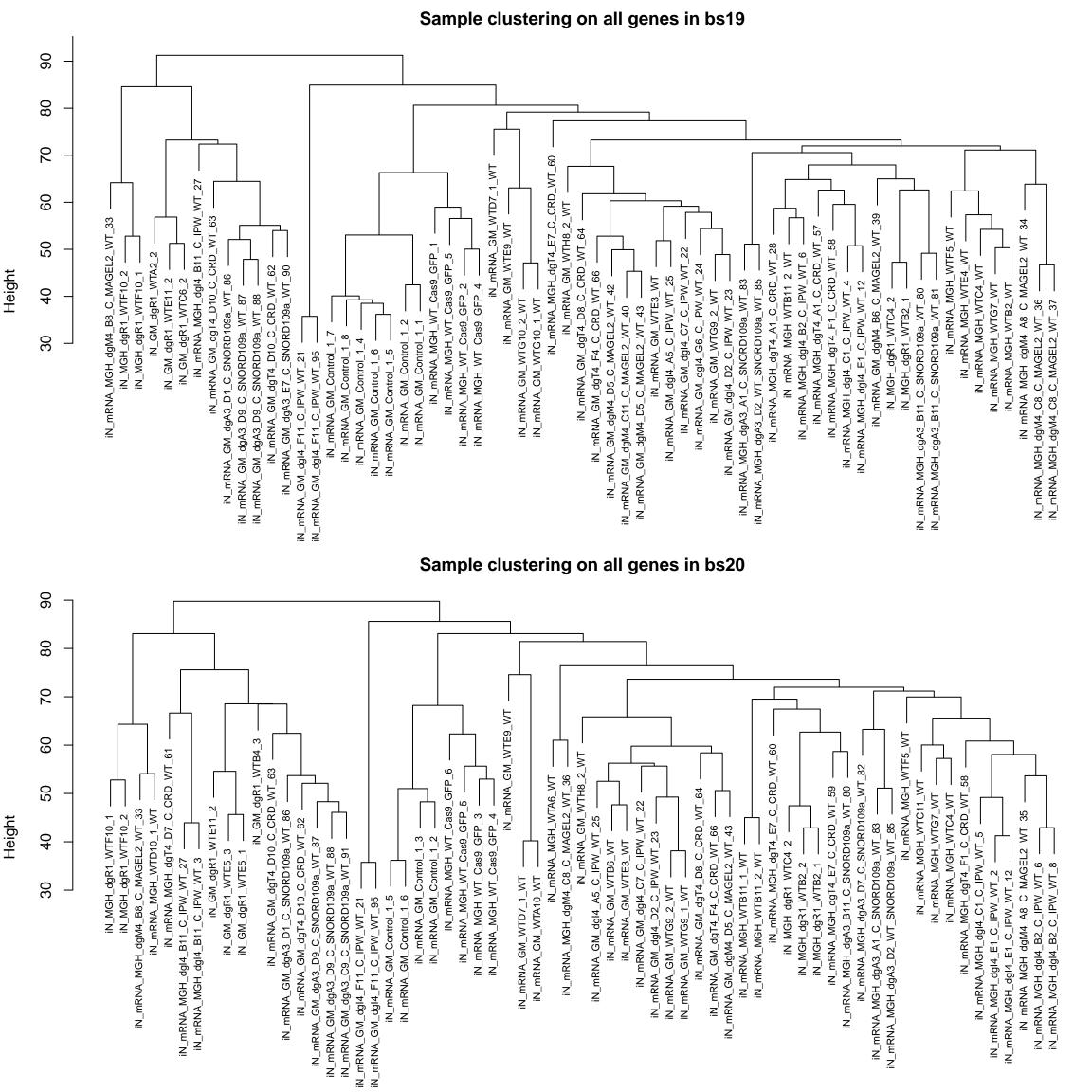
## Sample clustering on all genes in bs9 8 80 70 iN\_mRNA\_MGH\_dgl4\_B11\_C\_IPW\_WT\_3 9 IN\_mRNA\_GM\_WTH8\_2\_WT IN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_34 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_39 IN MRNA GM dgT4 A2 C CRD WT 67 iN\_mRNA\_MGH\_WTA6\_WT iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_63 iN\_mRNA\_GM\_dgT4\_D8\_C\_CRD\_WT\_64 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_6 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_80 IN\_mRNA\_MGH\_WTF5\_WT iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_ IN\_mRNA\_MGH\_WTE4\_WT IN\_mRNA\_GM\_WTE9\_WT iN\_mRNA\_MGH\_dgT4\_F1\_C\_CRD\_WT\_58 50 IN\_mRNA\_GM\_WTG10\_1\_WT iN\_mRNA\_GM\_dgI4\_G6\_C\_IPW\_WT\_24 IN\_mRNA\_MGH\_WTC11\_WT IN\_mRNA\_MGH\_WTC4\_WT iN\_GM\_dgR1\_WTA2\_2 iN\_mRNA\_MGH\_dgI4\_B2\_C\_IPW\_WT\_6 IN\_mRNA\_GM\_dgM4\_C1\_C\_MAGEL2\_WT\_41 iN\_mRNA\_GM\_dgl4\_C7\_C\_IPW\_WT\_22 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_5 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_3 IN\_mRNA\_GM\_WTF12\_WT Height iN\_GM\_dgR1\_WTE5\_3 iN\_GM\_dgR1\_WTC6\_2 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_66 iN\_MGH\_dgR1\_WTF10\_1 IN\_MGH\_dgR1\_WTF10\_2 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_62 iN\_mRNA\_GM\_dgl4\_A5\_C\_IPW\_WT\_25 IN\_mRNA\_GM\_WTE3\_WT iN\_mRNA\_MGH\_WTB11\_2\_WT IN\_mRNA\_MGH\_WTB5\_WT iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_42 4 iN\_mRNA\_GM\_dgl4\_D2\_C\_IPW\_WT\_23 iN\_mRNA\_MGH\_dgA3\_A1\_C\_SNORD109a\_WT\_83 iN\_mRNA\_MGH\_dgI4\_C1\_C\_IPW\_WT\_5 IN\_mRNA\_MGH\_WTD10\_1\_WT iN\_mRNA\_GM\_Control\_1\_3 IN MRNA MGH WTD10 2 WT iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_36 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_37 iN\_mRNA\_GM\_dgM4\_C11\_C\_MAGEL2\_WT\_40 iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_43 J\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_85 !\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_84 iN\_mRNA\_GM\_dgA3\_E1\_C\_SNORD109a\_WT\_89 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_87 IN\_mRNA\_GM\_WTD7\_2\_WT IN\_mRNA\_GM\_WTA10\_WT IN\_MGH\_dgR1\_WTB2\_1 iN\_mRNA\_GM\_Control\_1\_2 iN\_MGH\_dgR1\_WTB2\_2 iN\_mRNA\_GM\_Control\_1\_1 iN\_mRNA\_MGH\_dgl4\_E1\_C\_IPW\_WT\_12 iN\_mRNA\_MGH\_dgl4\_E1\_C\_IPW\_WT\_2 30 iN\_mRNA\_GM\_WTG9\_1\_WT IN\_mRNA\_GM\_WTG9\_2\_WT iN\_mRNA\_GM\_Control\_1\_6 IN\_mRNA\_GM\_Control\_1\_5 iN\_mRNA\_GM\_dgI4\_F11\_C\_IPW\_WT\_95 iN\_mRNA\_GM\_dgI4\_F11\_C\_IPW\_WT\_21 Sample clustering on all genes in bs10 90 80 iN\_mRNA\_GM\_dgI4\_F11\_C\_IPW\_WT\_95 2 IN\_GM\_dgR1\_WTB4\_3 9 IN\_MGH\_dgR1\_WTF10\_1 IN\_mRNA\_MGH\_WTD10\_2\_WT iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_63 IN\_mRNA\_GM\_WTH8\_2\_WT iN\_mRNA\_MGH\_dgl4\_B11\_C\_IPW\_WT\_27 iN\_mRNA\_MGH\_dgT4\_D7\_C\_CRD\_WT\_61 IN\_mRNA\_MGH\_WTF5\_WT iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_34 iN\_mRNA\_GM\_WTD7\_1\_WT iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_6 iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_42 iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_57 IN\_mRNA\_MGH\_WTE4\_WT IN MRNA GM WTE9 WT IN\_mRNA\_GM\_WTG10\_1\_WT iN\_mRNA\_MGH\_dgT4\_F1\_C\_CRD\_WT\_58 iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_28 iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_59 50 iN\_mRNA\_GM\_dgI4\_C7\_C\_IPW\_WT\_22 IN\_mRNA\_MGH\_WTG7\_WT IN\_mRNA\_MGH\_WTC4\_WT IN\_mRNA\_MGH\_WT\_Cas9\_GFP\_5 IN\_mRNA\_MGH\_dgI4\_B2\_C\_IPW\_WT\_8 iN\_GM\_dgR1\_WTA2\_2 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_66 IN\_mRNA\_GM\_WTF12\_WT iN\_mRNA\_GM\_dgM4\_C1\_C\_MAGEL2\_WT\_41 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_62 IN\_mRNA\_MGH\_WTB5\_WT Height iN\_mRNA\_GM\_dgI4\_A5\_C\_IPW\_WT\_25 IN\_mRNA\_GM\_WTE3\_WT iN\_GM\_dgR1\_WTC6\_2 IN\_mRNA\_MGH\_WT\_Cas9\_GFP\_2 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_4 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_80 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_81 iN\_mRNA\_MGH\_dgI4\_C1\_C\_IPW\_WT\_5 4 iN\_mRNA\_GM\_dgA3\_E7\_C\_SNORD109a\_WT\_90 iN\_mRNA\_GM\_Control\_1\_3 iN\_MGH\_dgR1\_WTC4\_2 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_36 iN\_MGH\_dgR1\_WTB2\_1 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_37 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_88 IN\_GM\_dgR1\_WTE5\_1 iN\_mRNA\_GM\_dgA3\_C9\_C\_SNORD109a\_WT\_91 iN\_GM\_dgR1\_WTE5\_3 iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_85 iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_84 iN\_mRNA\_GM\_dgA3\_E1\_C\_SNORD109a\_WT\_89 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_87 IN\_mRNA\_MGH\_WTB11\_2\_WT IN\_mRNA\_MGH\_WTB11\_1\_WT IN\_mRNA\_GM\_Control\_1\_2 iN\_mRNA\_GM\_Control\_1\_1 IN\_mRNA\_MGH\_dgI4\_E1\_C\_IPW\_WT\_12 iN\_mRNA\_GM\_Control\_1\_6 iN\_mRNA\_MGH\_dgl4\_E1\_C\_IPW\_WT\_2 iN\_mRNA\_GM\_Control\_1\_7 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_38 iN\_mRNA\_GM\_Control\_1\_8 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_39 IN mRNA GM Control 1 4 30







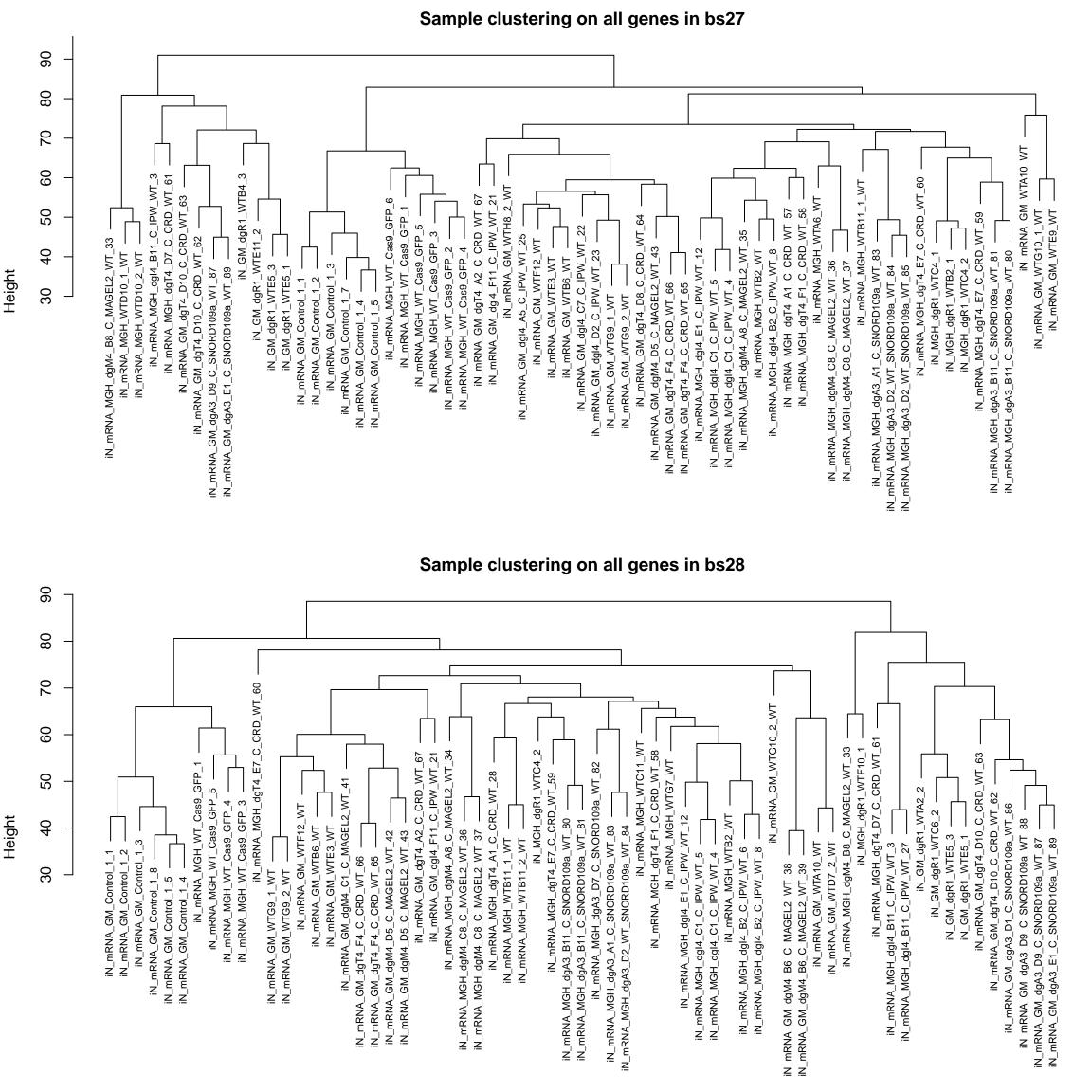


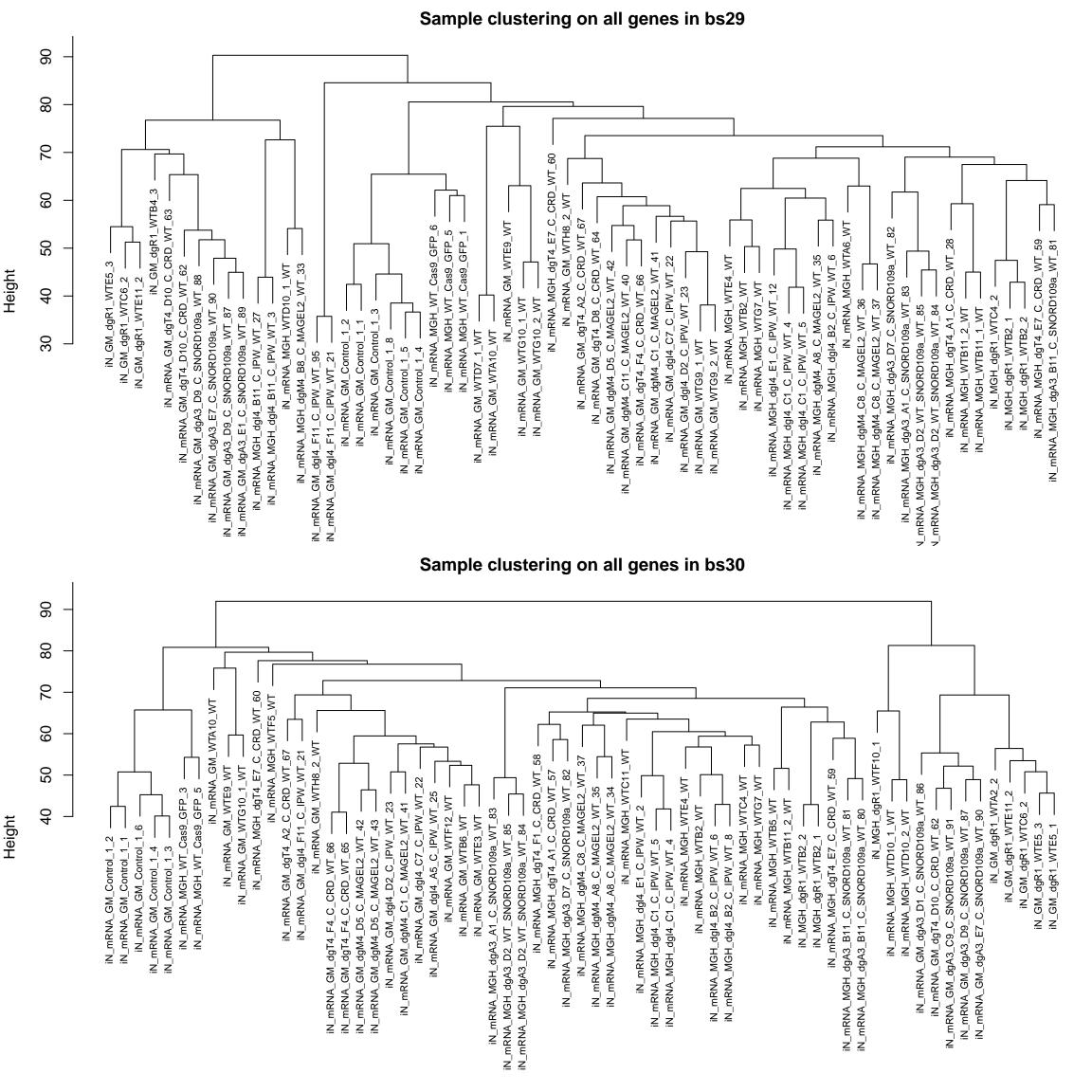


# Sample clustering on all genes in bs21 8 80 2 IN\_mRNA\_MGH\_dgI4\_B11\_C\_IPW\_WT\_27 9 iN\_GM\_dgR1\_WTB4\_3 iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_60 IN\_mRNA\_GM\_WTH8\_2\_WT IN\_mRNA\_MGH\_WTF5\_WT IN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_34 iN\_mRNA\_GM\_dgI4\_F11\_C\_IPW\_WT\_21 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_80 IN\_mRNA\_GM\_dgT4\_A2\_C\_CRD\_WT\_67 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_63 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_6 IN\_mRNA\_GM\_WTE9\_WT iN\_mRNA\_MGH\_dgA3\_D7\_C\_SNORD109a\_WT\_82 iN\_mRNA\_GM\_dgT4\_D8\_C\_CRD\_WT\_64 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_1 50 IN\_mRNA\_MGH\_WTC4\_WT IN\_mRNA\_MGH\_WTG7\_WT IN\_mRNA\_MGH\_WTE4\_WT iN\_mRNA\_GM\_dgM4\_C1\_C\_MAGEL2\_WT\_41 IN\_mRNA\_GM\_WTF12\_WT iN\_mRNA\_GM\_dgI4\_G6\_C\_IPW\_WT\_24 iN\_mRNA\_GM\_dgA3\_D1\_C\_SNORD109a\_WT\_86 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_3 Height iN\_mRNA\_GM\_dgl4\_A5\_C\_IPW\_WT\_25 IN\_mRNA\_GM\_WTE3\_WT IN\_GM\_dgR1\_WTC6\_2 IN\_GM\_dgR1\_WTE11\_2 iN\_mRNA\_MGH\_dgl4\_C1\_C\_IPW\_WT\_4 iN\_mRNA\_MGH\_dgl4\_E1\_C\_IPW\_WT\_12 iN\_mRNA\_MGH\_dgM4\_B8\_C\_MAGEL2\_WT\_33 IN\_MGH\_dgR1\_WTC4\_1 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_4 iN\_mRNA\_MGH\_WTD10\_2\_WT iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_42 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_2 IN\_mRNA\_MGH\_WTB2\_WT iN\_mRNA\_MGH\_dgA3\_A1\_C\_SNORD109a\_WT\_83 IN\_mRNA\_GM\_WTG9\_2\_WT iN\_mRNA\_GM\_dgl4\_D2\_C\_IPW\_WT\_23 4 IN\_mRNA\_GM\_WTG10\_1\_WT iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_62 IN\_mRNA\_GM\_WTG10\_2\_WT iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_36 iN\_mRNA\_GM\_dgA3\_C9\_C\_SNORD109a\_WT\_91 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_37 iN\_mRNA\_GM\_Control\_1\_3 iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_84 iN\_mRNA\_GM\_dgM4\_C11\_C\_MAGEL2\_WT\_40 iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_43 iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_85 iN\_mRNA\_GM\_dgA3\_E1\_C\_SNORD109a\_WT\_89 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_87 iN\_mRNA\_MGH\_dgI4\_B2\_C\_IPW\_WT\_6 iN\_mRNA\_MGH\_dgI4\_B2\_C\_IPW\_WT\_8 iN\_MGH\_dgR1\_WTB2\_2 iN\_MGH\_dgR1\_WTB2\_1 iN\_mRNA\_GM\_Control\_1\_1 iN\_mRNA\_GM\_Control\_1\_2 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_66 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_65 iN\_mRNA\_GM\_Control\_1\_7 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_39 iN\_mRNA\_GM\_Control\_1\_8 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_38 IN\_mRNA\_GM\_Control\_1\_4 30 Sample clustering on all genes in bs22 8 80 iN\_mRNA\_GM\_dgI4\_F11\_C\_IPW\_WT\_95 20 9 iN\_mRNA\_GM\_WTH8\_2\_WT IN MGH dgR1 WTF10 2 iN\_mRNA\_GM\_dgT4\_A2\_C\_CRD\_WT\_67 iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_34 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_63 IN\_mRNA\_GM\_WTE9\_WT iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_57 IN\_mRNA\_MGH\_WTF5\_WT IN MRNA MGH WTA6 WT IN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_36 IN\_mRNA\_MGH\_WTE4\_WT IN\_mRNA\_MGH\_WTC11\_WT 50 iN\_mRNA\_MGH\_dgI4\_B2\_C\_IPW\_WT\_8 IN\_mRNA\_MGH\_WTB11\_2\_WT iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_28 IN\_mRNA\_MGH\_WTG7\_WT IN\_mRNA\_MGH\_WTC4\_WT IN MRNA MGH WT Cas9 GFP 2 iN\_mRNA\_GM\_dgl4\_C7\_C\_IPW\_WT\_22 iN\_mRNA\_GM\_dgA3\_D1\_C\_SNORD109a\_WT\_86 IN\_mRNA\_MGH\_WT\_Cas9\_GFP\_5 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_3 iN\_GM\_dgR1\_WTA2\_2 iN\_GM\_dgR1\_WTE5\_1 iN\_mRNA\_GM\_dgA3\_E7\_C\_SNORD109a\_WT\_90 IN\_mRNA\_GM\_WTF12\_WT iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_62 iN\_mRNA\_MGH\_dgM4\_B8\_C\_MAGEL2\_WT\_33 IN\_mRNA\_MGH\_WTD10\_2\_WT iN\_mRNA\_MGH\_dgI4\_C1\_C\_IPW\_WT\_4 IN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_42 Height iN\_mRNA\_MGH\_dgI4\_E1\_C\_IPW\_WT\_2 in\_mRNA\_MGH\_dgA3\_A1\_C\_SNORD109a\_WT\_83 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_80 4 iN\_MGH\_dgR1\_WTC4\_1 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_81 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_88 iN\_MGH\_dgR1\_WTC4\_2 IN\_mRNA\_GM\_WTG10\_1\_WT IN\_mRNA\_GM\_WTE3\_WT IN\_MGH\_dgR1\_WTB2\_1 iN\_mRNA\_GM\_Control\_1\_3 IN\_mRNA\_GM\_WTB6\_WT IN\_mRNA\_GM\_WTG10\_2\_WT iN\_mRNA\_GM\_dgA3\_E1\_C\_SNORD109a\_WT\_89 iN\_mRNA\_GM\_dgM4\_C11\_C\_MAGEL2\_WT\_40 IN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_43 iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_84 iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_85 iN\_mRNA\_GM\_dgA3\_C9\_C\_SNORD109a\_WT\_91 IN\_mRNA\_GM\_WTD7\_2\_WT IN\_mRNA\_GM\_WTA10\_WT iN\_mRNA\_MGH\_dgl4\_B11\_C\_IPW\_WT\_3 IN\_mRNA\_MGH\_dgl4\_B11\_C\_IPW\_WT\_27 iN\_mRNA\_GM\_Control\_1\_1 iN\_mRNA\_GM\_Control\_1\_2 iN\_mRNA\_GM\_Control\_1\_7 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_39 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_38 30 iN\_mRNA\_GM\_Control\_1\_4 IN\_mRNA\_GM\_WTG9\_1\_WT IN\_mRNA\_GM\_WTG9\_2\_WT iN\_mRNA\_GM\_Control\_1\_6 IN\_mRNA\_GM\_Control\_1\_5

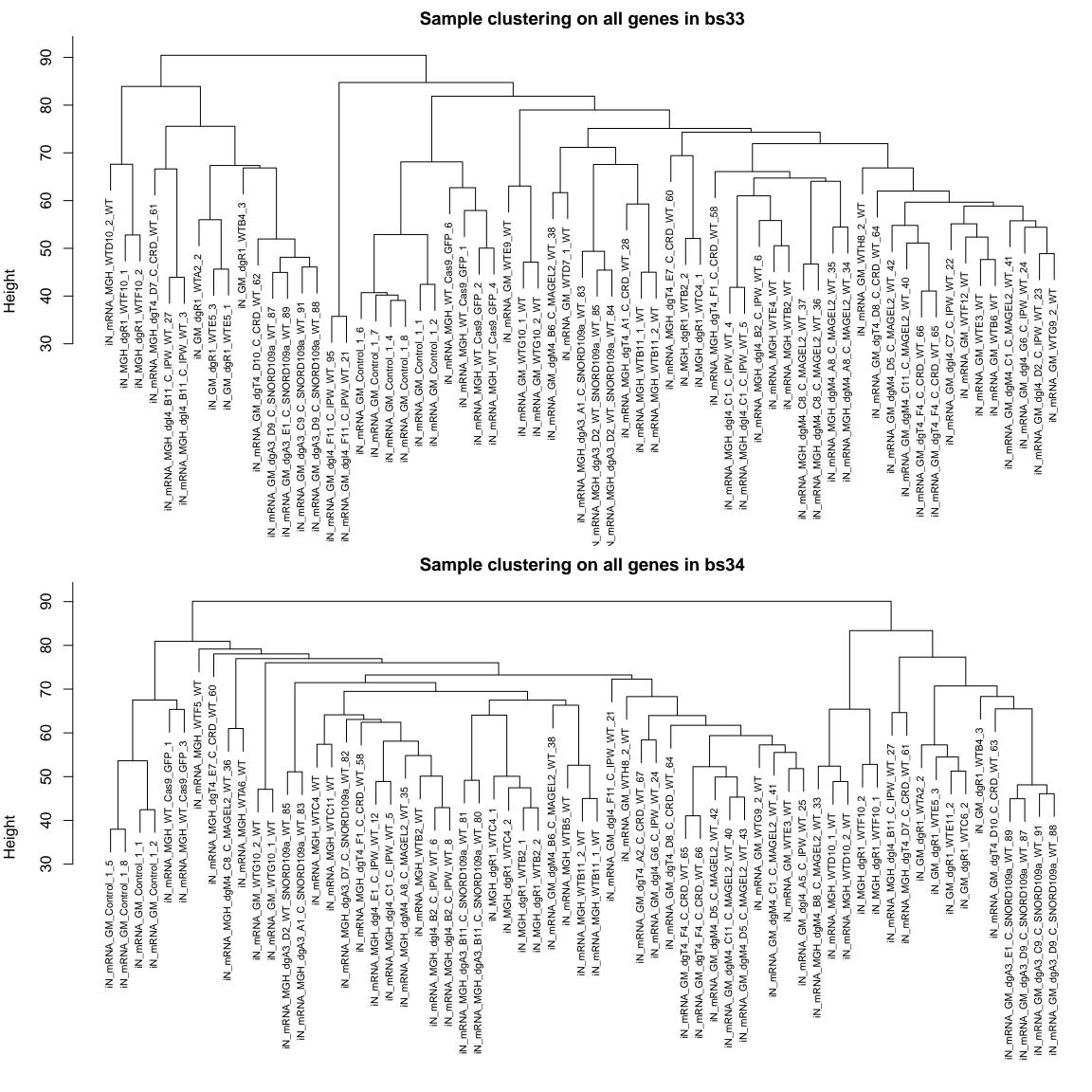
#### Sample clustering on all genes in bs23 90 80 iN\_mRNA\_GM\_dgl4\_F11\_C\_IPW\_WT\_95 70 iN\_mRNA\_MGH\_dgT4\_D7\_C\_CRD\_WT\_61 9 IN\_MGH\_dgR1\_WTB2\_1 IN\_mRNA\_GM\_WTH8\_2\_WT iN\_mRNA\_GM\_WTG10\_2\_WT IN\_mRNA\_GM\_WTE9\_WT iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_63 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_6 IN\_mRNA\_MGH\_WTF5\_WT IN\_mRNA\_MGH\_WTE4\_WT iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_81 iN\_mRNA\_MGH\_dgT4\_F1\_C\_CRD\_WT\_58 50 iN\_mRNA\_MGH\_dgA3\_D7\_C\_SNORD109a\_WT\_82 iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_57 IN\_mRNA\_MGH\_WTC4\_WT iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_5 iN\_mRNA\_MGH\_WTC11\_WT iN\_mRNA\_GM\_Control\_1\_1 iN\_mRNA\_GM\_dgM4\_C1\_C\_MAGEL2\_WT\_41 iN\_mRNA\_GM\_dgl4\_G6\_C\_IPW\_WT\_24 iN\_GM\_dgR1\_WTE11\_2 IN\_mRNA\_MGH\_WTB11\_1\_WT IN\_mRNA\_MGH\_WTB5\_WT iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_62 iN\_MGH\_dgR1\_WTF10\_1 iN\_MGH\_dgR1\_WTF10\_2 iN\_mRNA\_GM\_dgl4\_C7\_C\_IPW\_WT\_ IN\_mRNA\_GM\_WTF12\_WT IN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_35 iN\_mRNA\_MGH\_dgI4\_B2\_C\_IPW\_WT\_8 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_88 iN\_mRNA\_GM\_dgA3\_D1\_C\_SNORD109a\_WT\_86 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_4 IN\_mRNA\_MGH\_dgI4\_E1\_C\_IPW\_WT\_12 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_2 Height IN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_42 IN\_mRNA\_GM\_WTG9\_1\_WT iN\_mRNA\_GM\_dgl4\_D2\_C\_IPW\_WT\_23 4 IN\_mRNA\_MGH\_dgM4\_B8\_C\_MAGEL2\_WT\_ IN\_mRNA\_MGH\_WTD10\_2\_WT IN\_mRNA\_MGH\_WTD10\_1\_WT iN\_mRNA\_GM\_dgA3\_E7\_C\_SNORD109a\_WT\_90 IN\_mRNA\_GM\_WTB6\_WT IN\_mRNA\_GM\_WTE3\_WT iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_36 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_37 IN\_GM\_dgR1\_WTE5\_1 iN\_GM\_dgR1\_WTE5\_3 iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_85 iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_84 iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_43 IN\_mRNA\_GM\_dgM4\_C11\_C\_MAGEL2\_WT\_40 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_87 iN\_mRNA\_GM\_dgA3\_E1\_C\_SNORD109a\_WT\_89 iN\_mRNA\_MGH\_dgl4\_C1\_C\_IPW\_WT\_5 iN\_mRNA\_MGH\_dgl4\_C1\_C\_IPW\_WT\_4 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_66 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_65 iN\_mRNA\_GM\_Control\_1\_7 IN\_mRNA\_GM\_WTA10\_WT IN\_mRNA\_GM\_WTD7\_1\_WT iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_38 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_39 30 iN\_mRNA\_GM\_Control\_1\_6 iN\_mRNA\_GM\_Control\_1\_5 Sample clustering on all genes in bs24 8 8 IN\_mRNA\_MGH\_WTA6\_WT 20 iN\_mRNA\_MGH\_dgT4\_D7\_C\_CRD\_WT\_61 iN\_mRNA\_GM\_dgI4\_F11\_C\_IPW\_WT\_21 9 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_63 iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_34 IN\_mRNA\_GM\_WTE9\_WT iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_6 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_38 IN\_mRNA\_MGH\_WTE4\_WT iN\_mRNA\_MGH\_dgT4\_F1\_C\_CRD\_WT\_58 iN\_mRNA\_GM\_WTD7\_1\_WT IN\_mRNA\_MGH\_WTF5\_WT iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_1 iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_28 IN\_mRNA\_MGH\_WTC11\_WT 50 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_80 IN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_57 iN\_mRNA\_MGH\_dgA3\_D7\_C\_SNORD109a\_WT\_82 iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_59 iN\_mRNA\_MGH\_WTG7\_WT IN\_mRNA\_MGH\_WTC4\_WT iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_5 iN\_mRNA\_GM\_dgI4\_G6\_C\_IPW\_WT\_24 iN\_GM\_dgR1\_WTC6\_2 iN\_mRNA\_GM\_dgM4\_C1\_C\_MAGEL2\_WT\_41 iN\_GM\_dgR1\_WTA2\_2 iN\_mRNA\_GM\_dgl4\_C7\_C\_IPW\_WT\_22 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_62 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_3 IN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_35 IN\_mRNA\_MGH\_WTB5\_WT IN\_mRNA\_MGH\_WTB11\_1\_WT iN\_MGH\_dgR1\_WTF10\_2 iN\_mRNA\_GM\_dgA3\_E7\_C\_SNORD109a\_WT\_90 iN\_MGH\_dgR1\_WTF10\_1 IN mRNA GM WTF12 WT iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_43 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_66 iN\_mRNA\_MGH\_dgA3\_A1\_C\_SNORD109a\_WT\_83 iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_85 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_4 4 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_2 iN\_mRNA\_MGH\_dgI4\_C1\_C\_IPW\_WT\_5 iN\_mRNA\_GM\_dgl4\_D2\_C\_IPW\_WT\_23 iN\_mRNA\_MGH\_dgI4\_E1\_C\_IPW\_WT\_2 IN\_mRNA\_MGH\_WTD10\_1\_WT iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_88 iN\_mRNA\_GM\_Control\_1\_3 IN\_mRNA\_MGH\_WTD10\_2\_WT iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_87 Height iN\_mRNA\_GM\_Control\_1\_2 IN\_mRNA\_GM\_WTB6\_WT iN\_MGH\_dgR1\_WTC4\_2 IN\_mRNA\_GM\_WTG10\_2\_WT IN\_mRNA\_GM\_WTE3\_WT iN\_MGH\_dgR1\_WTB2\_1 IN\_mRNA\_GM\_WTG10\_1\_WT iN\_mRNA\_MGH\_dgI4\_B2\_C\_IPW\_WT\_8 iN\_mRNA\_MGH\_dgI4\_B2\_C\_IPW\_WT\_6 30 IN mRNA GM Control 1 7 IN\_mRNA\_GM\_Control\_1\_8 iN\_mRNA\_GM\_WTG9\_1\_WT iN\_mRNA\_GM\_WTG9\_2\_WT iN\_mRNA\_GM\_Control\_1\_6 iN\_mRNA\_GM\_Control\_1\_5

#### Sample clustering on all genes in bs25 90 80 iN\_mRNA\_GM\_dgI4\_F11\_C\_IPW\_WT\_95 20 IN\_mRNA\_GM\_WTA10\_WT iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_63 9 IN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_60 iN\_mRNA\_GM\_WTH8\_2\_WT IN MRNA MGH WTB11\_1\_WT iN\_GM\_dgR1\_WTB4\_3 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_39 iN\_MGH\_dgR1\_WTF10\_1 IN\_mRNA\_MGH\_WT\_Cas9\_GFP\_6 IN\_mRNA\_GM\_WTE9\_WT iN\_mRNA\_GM\_dgT4\_D8\_C\_CRD\_WT\_64 IN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_36 IN\_mRNA\_MGH\_WTE4\_WT IN\_mRNA\_MGH\_WTA6\_WT IN\_mRNA\_MGH\_WTC11\_WT iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_34 50 iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_59 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_80 iN\_mRNA\_MGH\_dgA3\_D7\_C\_SNORD109a\_WT\_82 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_1 iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_57 IN\_mRNA\_MGH\_WTG7\_WT IN\_mRNA\_MGH\_WTC4\_WT iN\_mRNA\_GM\_dgl4\_C7\_C\_IPW\_WT\_22 iN\_mRNA\_GM\_dgM4\_C1\_C\_MAGEL2\_WT\_41 iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_35 iN\_mRNA\_GM\_dgA3\_D1\_C\_SNORD109a\_WT\_86 iN\_mRNA\_GM\_dgl4\_A5\_C\_IPW\_WT\_25 iN\_mRNA\_GM\_WTE3\_WT iN\_mRNA\_MGH\_dgM4\_B8\_C\_MAGEL2\_WT\_33 iN\_mRNA\_MGH\_dgl4\_B11\_C\_IPW\_WT\_3 —\_\_ iN\_GM\_dgR1\_WTC6\_2 iN\_mRNA\_GM\_Control\_1\_2 iN\_mRNA\_MGH\_dgl4\_C1\_C\_IPW\_WT\_4 IN\_mRNA\_MGH\_WTD10\_2\_WT IN\_mRNA\_MGH\_WT\_Cas9\_GFP\_4 IN\_mRNA\_MGH\_WT\_Cas9\_GFP\_2 iN\_mRNA\_GM\_dgl4\_D2\_C\_IPW\_WT\_23 IN\_mRNA\_GM\_WTG9\_1\_WT iN\_mRNA\_MGH\_dgA3\_A1\_C\_SNORD109a\_WT\_83 4 iN\_MGH\_dgR1\_WTC4\_1 iN\_mRNA\_GM\_dgA3\_E7\_C\_SNORD109a\_WT\_90 iN\_MGH\_dgR1\_WTC4\_2 iN\_mRNA\_GM\_WTG10\_1\_WT iN\_MGH\_dgR1\_WTB2\_1 IN mRNA GM WTG10 2 WT iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_42 Height IN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_43 iN\_GM\_dgR1\_WTE5\_3 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_88 iN\_mRNA\_GM\_dgA3\_C9\_C\_SNORD109a\_WT\_91 iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_85 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_87 iN\_mRNA\_GM\_dgA3\_E1\_C\_SNORD109a\_WT\_89 iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_84 iN\_GM\_dgR1\_WTE5\_ IN\_mRNA\_MGH\_dgI4\_B11\_C\_IPW\_WT\_27 iN\_mRNA\_MGH\_dgI4\_B2\_C\_IPW\_WT\_8 iN\_mRNA\_MGH\_dgI4\_B2\_C\_IPW\_WT\_6 IN\_mRNA\_MGH\_dgI4\_E1\_C\_IPW\_WT\_12 iN\_mRNA\_MGH\_dgI4\_E1\_C\_IPW\_WT\_2 iN\_mRNA\_GM\_Control\_1\_7 30 iN\_mRNA\_GM\_Control\_1\_8 iN\_mRNA\_GM\_Control\_1\_4 Sample clustering on all genes in bs26 90 80 2 iN\_mRNA\_GM\_dgl4\_F11\_C\_IPW\_WT\_21 9 iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_60 IN\_mRNA\_GM\_WTE9\_WT IN\_mRNA\_GM\_WTG10\_2\_WT IN\_mRNA\_MGH\_WTD10\_1\_WT iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_63 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_1 IN\_mRNA\_MGH\_WTC11\_WT IN\_mRNA\_MGH\_WTG7\_WT iN\_mRNA\_GM\_dgT4\_A2\_C\_CRD\_WT\_67 IN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_57 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_36 IN\_mRNA\_MGH\_WTA6\_WT IN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_34 20 iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_59 iN\_mRNA\_MGH\_dgT4\_F1\_C\_CRD\_WT\_58 iN\_GM\_dgR1\_WTA2\_2 iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_35 iN\_mRNA\_GM\_dgI4\_G6\_C\_IPW\_WT\_24 IN\_mRNA\_GM\_dgA3\_D1\_C\_SNORD109a\_WT\_86 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_3 IN\_mRNA\_MGH\_WT\_Cas9\_GFP\_5 iN\_mRNA\_GM\_dgl4\_A5\_C\_IPW\_WT\_25 iN\_mRNA\_GM\_dgM4\_C1\_C\_MAGEL2\_WT\_41 iN\_GM\_dgR1\_WTE11\_2 iN\_mRNA\_GM\_Control\_1\_1 IN\_MGH\_dgR1\_WTF10\_1 iN\_MGH\_dgR1\_WTF10\_2 iN\_mRNA\_GM\_dgA3\_E7\_C\_SNORD109a\_WT\_90 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_62 iN\_mRNA\_MGH\_dgI4\_C1\_C\_IPW\_WT\_4 iN\_mRNA\_GM\_dgl4\_C7\_C\_IPW\_WT\_22 iN\_mRNA\_GM\_dgM4\_C11\_C\_MAGEL2\_WT\_40 IN\_mRNA\_GM\_WTB6\_WT iN\_GM\_dgR1\_WTC6\_2 iN\_mRNA\_GM\_WTG9\_1\_WT iN\_mRNA\_MGH\_dgA3\_A1\_C\_SNORD109a\_WT\_83 iN\_mRNA\_GM\_dgI4\_D2\_C\_IPW\_WT\_23 4 IN\_mRNA\_MGH\_WTB2\_WT iN\_mRNA\_MGH\_dgl4\_B2\_C\_IPW\_WT\_8 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_80 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_81 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_88 iN\_MGH\_dgR1\_WTC4\_2 iN\_mRNA\_GM\_Control\_1\_3 iN\_GM\_dgR1\_WTE5\_3 iN\_mRNA\_GM\_dgA3\_E1\_C\_SNORD109a\_WT\_89 iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_84 IN\_GM\_dgR1\_WTE5\_1 iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_85 iN\_mRNA\_GM\_dgA3\_C9\_C\_SNORD109a\_WT\_91 IN\_mRNA\_MGH\_WTB11\_2\_WT Height iN\_mRNA\_MGH\_WTB11\_1\_WT iN\_MGH\_dgR1\_WTB2\_1 iN\_MGH\_dgR1\_WTB2\_2 IN\_mRNA\_MGH\_dgl4\_E1\_C\_IPW\_WT\_12 iN\_mRNA\_MGH\_dgI4\_E1\_C\_IPW\_WT\_2 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_65 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_66 IN MRNA GM WTD7\_1 WT 30 IN\_mRNA\_GM\_WTA10\_WT iN\_mRNA\_GM\_Control\_1\_7 iN\_mRNA\_GM\_Control\_1\_8 iN\_mRNA\_GM\_Control\_1\_4 iN\_mRNA\_GM\_Control\_1\_5

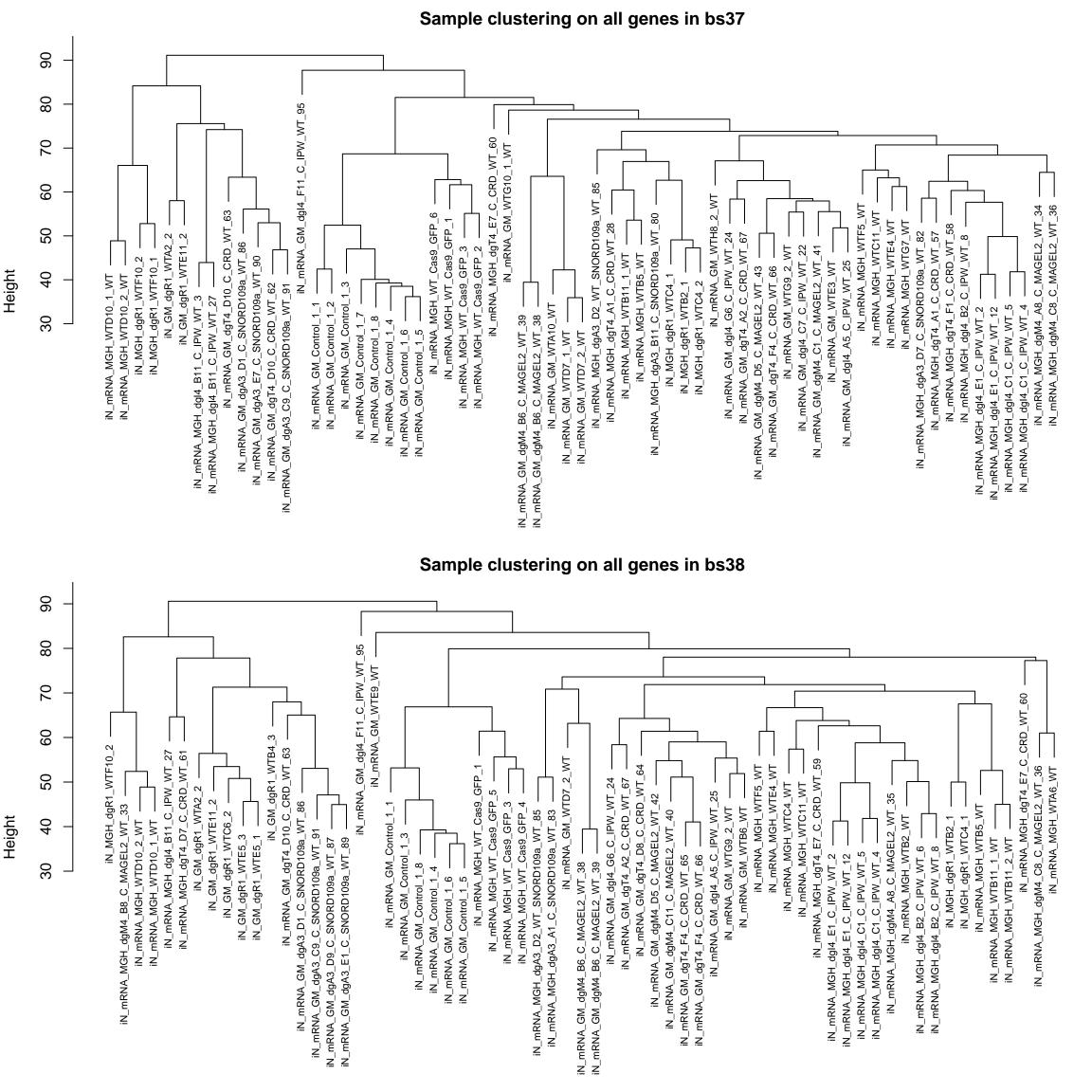




# Sample clustering on all genes in bs31 90 80 IN\_mRNA\_MGH\_WTA6\_WT 70 iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_60 iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_85 iN\_GM\_dgR1\_WTB4\_3 9 IN\_mRNA\_MGH\_WTF5\_WT iN\_mRNA\_MGH\_dgT4\_D7\_C\_CRD\_WT\_61 iN\_mRNA\_MGH\_WTD10\_1\_WT IN\_mRNA\_GM\_WTE9\_WT IN\_mRNA\_MGH\_WTC11\_WT iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_6 IN\_mRNA\_MGH\_WTG7\_WT iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_63 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_1 iN\_mRNA\_MGH\_dgT4\_F1\_C\_CRD\_WT\_58 IN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_57 50 iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_28 iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_59 iN\_GM\_dgR1\_WTA2\_2 iN\_mRNA\_GM\_dgI4\_G6\_C\_IPW\_WT\_24 iN\_GM\_dgR1\_WTE11\_2 iN\_GM\_dgR1\_WTE5\_3 IN\_mRNA\_MGH\_WT\_Cas9\_GFP\_5 IN\_mRNA\_GM\_dgM4\_C1\_C\_MAGEL2\_WT\_41 iN\_mRNA\_GM\_dgl4\_C7\_C\_IPW\_WT\_22 IN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_42 Height iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_3 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_4 iN\_MGH\_dgR1\_WTF10\_2 iN\_MGH\_dgR1\_WTF10\_1 iN\_mRNA\_GM\_dgl4\_A5\_C\_IPW\_WT\_25 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_62 IN\_mRNA\_GM\_WTE3\_WT iN\_mRNA\_MGH\_dgI4\_B2\_C\_IPW\_WT\_8 iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_35 IN\_mRNA\_MGH\_WTB5\_WT iN\_mRNA\_MGH\_WTB11\_2\_WT iN\_mRNA\_GM\_dgM4\_C11\_C\_MAGEL2\_WT\_40 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_65 iN\_mRNA\_MGH\_dgl4\_E1\_C\_IPW\_WT\_12 iN\_MGH\_dgR1\_WTC4\_1 4 iN\_mRNA\_GM\_dgl4\_D2\_C\_IPW\_WT\_23 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_80 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_81 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_87 IN\_mRNA\_GM\_WTG10\_2\_WT iN\_MGH\_dgR1\_WTC4\_2 IN\_mRNA\_GM\_WTG10\_1\_WT iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_88 iN\_mRNA\_GM\_Control\_1\_3 iN\_mRNA\_GM\_Control\_1\_7 \_\_\_\_ iN\_mRNA\_GM\_dgA3\_C9\_C\_SNORD109a\_WT\_91 IN\_mRNA\_GM\_WTA10\_WT IN\_mRNA\_GM\_WTD7\_2\_WT iN\_mRNA\_MGH\_dgl4\_B11\_C\_IPW\_WT\_3 iN\_mRNA\_MGH\_dgl4\_B11\_C\_IPW\_WT\_27 iN\_MGH\_dgR1\_WTB2\_2 IN\_MGH\_dgR1\_WTB2\_1 iN\_mRNA\_MGH\_dgI4\_C1\_C\_IPW\_WT\_4 iN\_mRNA\_MGH\_dgI4\_C1\_C\_IPW\_WT\_5 30 iN\_mRNA\_GM\_Control\_1\_8 iN\_mRNA\_GM\_Control\_1\_4 iN\_mRNA\_GM\_WTG9\_2\_WT IN\_mRNA\_GM\_WTG9\_1\_WT iN\_mRNA\_GM\_dgI4\_F11\_C\_IPW\_WT\_95 iN\_mRNA\_GM\_dgl4\_F11\_C\_IPW\_WT\_21 Sample clustering on all genes in bs32 90 80 2 IN\_mRNA\_GM\_WTG10\_1\_WT 9 iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_60 iN\_mRNA\_GM\_WTH8\_2\_WT IN\_mRNA\_MGH\_dgT4\_D7\_C\_CRD\_WT\_61 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_63 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_36 iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_59 IN\_MGH\_dgR1\_WTF10\_1 iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_34 $iN\_mRNA\_GM\_dgT4\_D8\_C\_CRD\_WT\_64$ IN\_mRNA\_MGH\_WTG7\_WT iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_1 iN\_mRNA\_GM\_dgI4\_G6\_C\_IPW\_WT\_24 50 iN\_mRNA\_GM\_dgT4\_A2\_C\_CRD\_WT\_67 IN\_mRNA\_GM\_WTG9\_2\_WT IN\_mRNA\_MGH\_WTE4\_WT IN\_mRNA\_MGH\_WT\_Cas9\_GFP\_5 iN\_mRNA\_GM\_dgM4\_C1\_C\_MAGEL2\_WT\_41 iN\_mRNA\_GM\_dgA3\_D1\_C\_SNORD109a\_WT\_86 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_3 iN\_mRNA\_MGH\_dgM4\_B8\_C\_MAGEL2\_WT\_33 IN\_mRNA\_MGH\_WTD10\_1\_WT iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_66 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_62 Height IN\_mRNA\_GM\_WTE3\_WT iN\_mRNA\_GM\_dgl4\_A5\_C\_IPW\_WT\_25 IN\_mRNA\_MGH\_WT\_Cas9\_GFP\_4 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_2 IN\_mRNA\_MGH\_WTB2\_WT iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_42 iN\_mRNA\_MGH\_dgA3\_A1\_C\_SNORD109a\_WT\_83 IN\_MGH\_dgR1\_WTC4\_1 iN\_mRNA\_GM\_Control\_1\_2 4 iN\_mRNA\_GM\_dgA3\_E7\_C\_SNORD109a\_WT\_90 IN\_MGH\_dgR1\_WTC4\_2 IN\_MGH\_dgR1\_WTB2\_1 iN\_GM\_dgR1\_WTE5\_3 IN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_88 iN\_mRNA\_GM\_Control\_1\_7 iN\_GM\_dgR1\_WTE5\_1 iN\_mRNA\_GM\_dgA3\_C9\_C\_SNORD109a\_WT\_91 N\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_84 iN\_mRNA\_GM\_dgM4\_C11\_C\_MAGEL2\_WT\_40 iN\_mRNA\_GM\_dgA3\_E1\_C\_SNORD109a\_WT\_89 N\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_85 iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_43 IN\_mRNA\_MGH\_WTB11\_1\_WT iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_87 IN\_mRNA\_GM\_WTA10\_WT IN\_mRNA\_MGH\_WTB11\_2\_WT iN\_mRNA\_GM\_WTD7\_2\_WT iN\_mRNA\_MGH\_dgl4\_B11\_C\_IPW\_WT\_3 iN\_mRNA\_MGH\_dgl4\_B11\_C\_IPW\_WT\_27 IN\_mRNA\_MGH\_dgl4\_B2\_C\_IPW\_WT\_6 iN\_mRNA\_MGH\_dgl4\_B2\_C\_IPW\_WT\_8 IN\_mRNA\_MGH\_dgl4\_C1\_C\_IPW\_WT\_5 iN\_mRNA\_MGH\_dgI4\_E1\_C\_IPW\_WT\_2 iN\_mRNA\_MGH\_dgl4\_E1\_C\_IPW\_WT\_12 iN\_mRNA\_MGH\_dgl4\_C1\_C\_IPW\_WT\_4 iN\_mRNA\_GM\_Control\_1\_3 iN\_mRNA\_GM\_Control\_1\_4 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_39 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_38 30 iN\_mRNA\_GM\_dgI4\_F11\_C\_IPW\_WT\_21 iN\_mRNA\_GM\_dgl4\_F11\_C\_IPW\_WT\_95



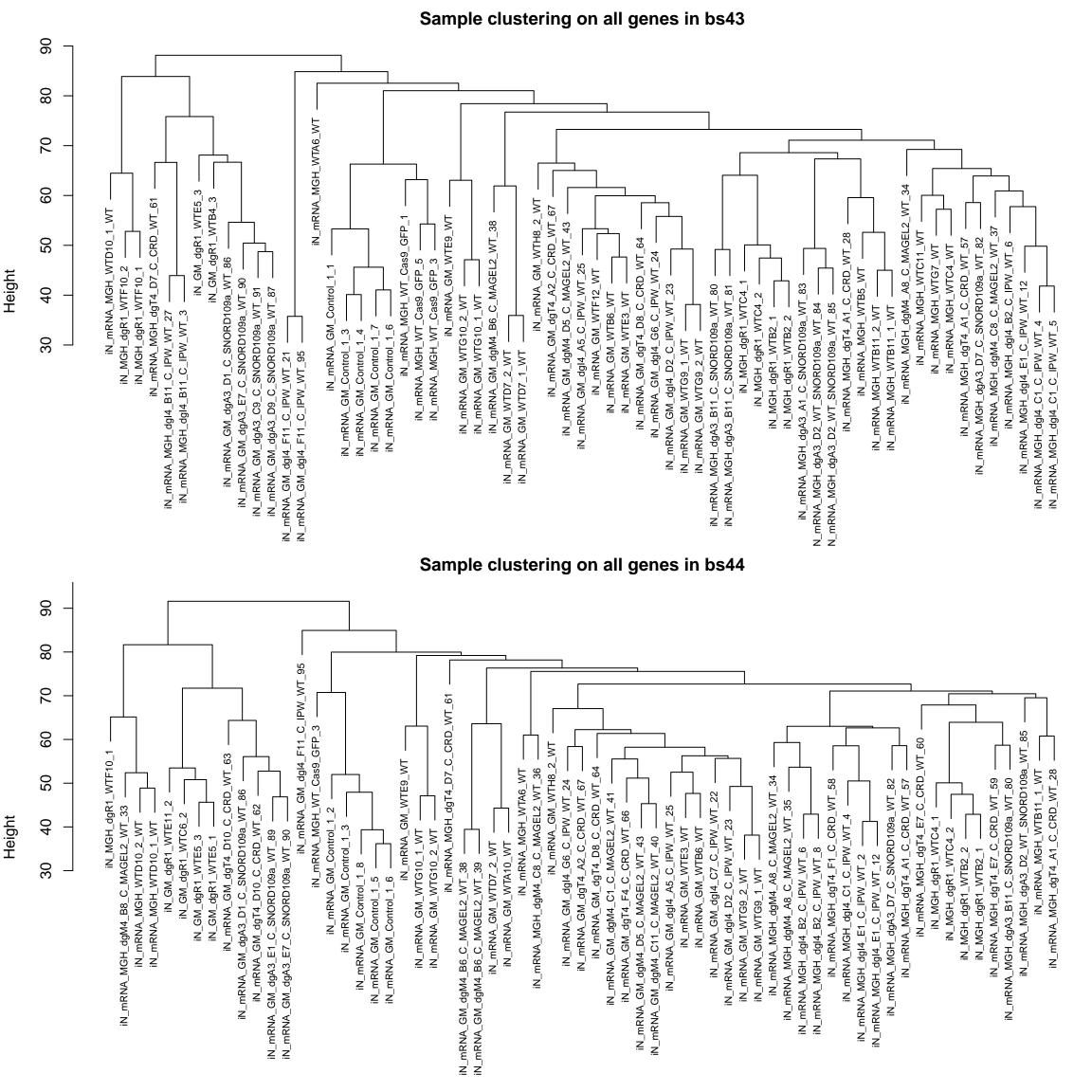
# Sample clustering on all genes in bs35 90 80 iN\_mRNA\_GM\_dgI4\_F11\_C\_IPW\_WT\_95 IN\_mRNA\_MGH\_WTA6\_WT 70 IN\_mRNA\_GM\_WTG10\_1\_WT \_27 9 iN\_mRNA\_MGH\_dgl4\_B11\_C\_IPW\_WT\_ iN\_GM\_dgR1\_WTB4\_3 IN\_MGH\_dgR1\_WTF10\_1 iN\_mRNA\_GM\_dgT4\_A2\_C\_CRD\_WT\_67 IN\_mRNA\_MGH\_WTF5\_WT iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_1 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_6 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_3 iN\_mRNA\_GM\_dgT4\_D8\_C\_CRD\_WT\_64 iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_57 IN\_mRNA\_MGH\_WTE4\_WT iN\_mRNA\_MGH\_dgT4\_F1\_C\_CRD\_WT\_58 iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_28 50 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_ IN\_mRNA\_MGH\_WTC4\_WT IN\_mRNA\_MGH\_WTG7\_WT iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_34 IN\_mRNA\_GM\_dgM4\_C1\_C\_MAGEL2\_WT\_41 iN\_mRNA\_GM\_WTG9\_1\_WT IN\_mRNA\_GM\_dgI4\_C7\_C\_IPW\_WT\_22 iN\_mRNA\_GM\_Control\_1\_1 iN\_GM\_dgR1\_WTE11\_2 iN\_mRNA\_MGH\_dgM4\_B8\_C\_MAGEL2\_WT\_33 iN\_mRNA\_MGH\_WTD10\_2\_WT — IN\_mRNA\_MGH\_WTB5\_WT iN\_mRNA\_GM\_dgl4\_A5\_C\_IPW\_WT\_25 IN\_MGH\_dgR1\_WTB2\_2 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_62 iN\_MGH\_dgR1\_WTC4\_1 iN\_mRNA\_MGH\_dgI4\_B2\_C\_IPW\_WT\_8 iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_35 iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_85 iN\_mRNA\_GM\_dgM4\_C11\_C\_MAGEL2\_WT\_40 iN\_mRNA\_MGH\_dgA3\_A1\_C\_SNORD109a\_WT\_83 iN\_GM\_dgR1\_WTC6\_2 iN\_mRNA\_MGH\_dgI4\_C1\_C\_IPW\_WT\_4 iN\_mRNA\_MGH\_dgI4\_E1\_C\_IPW\_WT\_2 Height 4 IN\_mRNA\_MGH\_WTD10\_1\_WT iN\_mRNA\_GM\_dgA3\_E7\_C\_SNORD109a\_WT\_90 IN\_mRNA\_GM\_WTE3\_WT IN\_mRNA\_GM\_WTB6\_WT iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_36 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_37 iN\_mRNA\_GM\_dgA3\_C9\_C\_SNORD109a\_WT\_91 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_88 iN\_GM\_dgR1\_WTE5\_3 iN\_GM\_dgR1\_WTE5\_1 iN\_mRNA\_GM\_dgA3\_E1\_C\_SNORD109a\_WT\_89 IN\_mRNA\_MGH\_WTB11\_2\_WT IN\_mRNA\_MGH\_WTB11\_1\_WT iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_87 IN\_mRNA\_GM\_WTA10\_WT iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_66 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_65 iN\_mRNA\_GM\_Control\_1\_7 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_38 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_39 30 iN\_mRNA\_GM\_Control\_1\_4 iN\_mRNA\_GM\_Control\_1\_6 iN\_mRNA\_GM\_Control\_1\_5 iN\_mRNA\_GM\_WTD7\_2\_WT iN\_mRNA\_GM\_WTD7\_1\_WT Sample clustering on all genes in bs36 90 80 20 iN\_GM\_dgR1\_WTA2\_2 iN\_GM\_dgR1\_WTB4\_3 9 iN\_mRNA\_MGH\_dgT4\_D7\_C\_CRD\_WT\_61 iN\_MGH\_dgR1\_WTF10\_2 iN\_mRNA\_GM\_dgT4\_A2\_C\_CRD\_WT\_67 IN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_63 IN\_mRNA\_MGH\_WTF5\_WT IN\_mRNA\_MGH\_WTA6\_WT iN\_mRNA\_GM\_dgT4\_D8\_C\_CRD\_WT\_64 IN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_28 IN\_mRNA\_MGH\_WTB11\_1\_WT iN\_mRNA\_GM\_WTG10\_1\_WT iN\_mRNA\_MGH\_dgT4\_F1\_C\_CRD\_WT\_58 IN\_mRNA\_GM\_WTE9\_WT 50 iN\_mRNA\_MGH\_dgA3\_D7\_C\_SNORD109a\_WT\_82 iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_57 IN\_mRNA\_MGH\_WTC11\_WT iN\_mRNA\_MGH\_dgI4\_B2\_C\_IPW\_WT\_6 iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_35 iN\_mRNA\_GM\_dgA3\_D1\_C\_SNORD109a\_WT\_86 iN\_mRNA\_GM\_dgI4\_C7\_C\_IPW\_WT\_22 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_3 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_5 IN\_mRNA\_MGH\_WT\_Cas9\_GFP\_ Height iN\_mRNA\_MGH\_dgM4\_B8\_C\_MAGEL2\_WT\_33 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_65 IN\_mRNA\_GM\_WTF12\_WT iN\_MGH\_dgR1\_WTC4\_1 iN\_mRNA\_MGH\_dgl4\_C1\_C\_IPW\_WT\_4 iN\_mRNA\_MGH\_dgI4\_E1\_C\_IPW\_WT\_2 iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_42 IN\_mRNA\_MGH\_WTB2\_WT IN\_mRNA\_MGH\_WTG7\_WT in\_mRNA\_MGH\_dgA3\_A1\_C\_SNORD109a\_WT\_83 iN\_mRNA\_GM\_dgA3\_E7\_C\_SNORD109a\_WT\_90 iN\_mRNA\_GM\_dgl4\_D2\_C\_IPW\_WT\_23 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_87 4 IN\_mRNA\_MGH\_WTD10\_1\_WT IN\_mRNA\_MGH\_WTD10\_2\_WT IN\_mRNA\_GM\_WTE3\_WT IN\_mRNA\_GM\_WTB6\_WT iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_36 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_37 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_62 iN\_mRNA\_GM\_dgA3\_C9\_C\_SNORD109a\_WT\_91 IN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_43 iN\_mRNA\_GM\_dgM4\_C11\_C\_MAGEL2\_WT\_40 N\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_85 N\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_84 IN\_mRNA\_MGH\_dgl4\_B11\_C\_IPW\_WT\_3 IN\_mRNA\_GM\_WTD7\_2\_WT IN\_mRNA\_GM\_WTA10\_WT iN\_mRNA\_MGH\_dgl4\_B11\_C\_IPW\_WT\_27 iN\_MGH\_dgR1\_WTB2\_2 iN\_mRNA\_GM\_Control\_1\_2 iN\_MGH\_dgR1\_WTB2\_1 iN\_mRNA\_GM\_Control\_1\_ 30 IN mRNA GM Control 1 8 iN\_mRNA\_GM\_Control\_1\_4 IN\_mRNA\_GM\_WTG9\_1\_WT IN\_mRNA\_GM\_WTG9\_2\_WT iN\_mRNA\_GM\_Control\_1\_5 iN\_mRNA\_GM\_Control\_1\_6 iN\_mRNA\_GM\_dgl4\_F11\_C\_IPW\_WT\_95 iN\_mRNA\_GM\_dgI4\_F11\_C\_IPW\_WT\_21



#### 8 80 20 iN\_mRNA\_MGH\_dgl4\_B11\_C\_IPW\_WT\_3 9 iN\_GM\_dgR1\_WTB4\_3 IN\_mRNA\_GM\_WTH8\_2\_WT IN\_mRNA\_MGH\_WTF5\_WT iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_63 IN MRNA MGH WTD10\_1\_WT iN\_MGH\_dgR1\_WTF10\_1 IN MRNA MGH WT Cas9 GFP 6 IN\_mRNA\_MGH\_WTG7\_WT IN\_mRNA\_MGH\_WTC11\_WT iN\_mRNA\_GM\_dgT4\_D8\_C\_CRD\_WT\_64 iN\_mRNA\_MGH\_dgT4\_F1\_C\_CRD\_WT\_58 iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_57 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_1 iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_59 50 iN\_mRNA\_MGH\_dgI4\_B2\_C\_IPW\_WT\_6 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_5 iN\_GM\_dgR1\_WTE11\_2 iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_34 IN\_mRNA\_GM\_dgA3\_D1\_C\_SNORD109a\_WT\_86 iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_35 iN\_mRNA\_GM\_dgl4\_C7\_C\_IPW\_WT\_22 IN\_mRNA\_MGH\_WTB11\_1\_WT IN\_mRNA\_MGH\_WTB5\_WT Height iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_66 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_62 iN\_mRNA\_GM\_Control\_1\_1 iN\_MGH\_dgR1\_WTC4\_1 iN\_MGH\_dgR1\_WTB2\_2 iN\_mRNA\_MGH\_dgA3\_A1\_C\_SNORD109a\_WT\_83 iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_85 iN\_mRNA\_MGH\_dgl4\_C1\_C\_IPW\_WT\_4 iN\_mRNA\_MGH\_dgl4\_E1\_C\_IPW\_WT\_12 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_2 IN mRNA MGH WT Cas9 GFP 4 iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_42 iN\_mRNA\_GM\_dgI4\_D2\_C\_IPW\_WT\_23 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_80 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_81 4 iN\_mRNA\_GM\_dgA3\_E7\_C\_SNORD109a\_WT\_90 IN\_mRNA\_GM\_WTB6\_WT iN\_mRNA\_GM\_WTE3\_WT iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_36 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_88 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_37 iN\_mRNA\_GM\_dgA3\_C9\_C\_SNORD109a\_WT\_91 iN\_mRNA\_GM\_Control\_1\_3 iN\_GM\_dgR1\_WTE5\_3 IN\_GM\_dgR1\_WTE5\_1 iN\_mRNA\_GM\_dgA3\_E1\_C\_SNORD109a\_WT\_89 IN\_mRNA\_GM\_dgM4\_C11\_C\_MAGEL2\_WT\_40 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_87 iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_43 IN\_mRNA\_GM\_WTA10\_WT iN\_mRNA\_GM\_Control\_1\_6 iN\_mRNA\_GM\_Control\_1\_8 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_39 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_38 iN\_mRNA\_GM\_Control\_1\_4 30 IN\_mRNA\_GM\_WTG9\_1\_WT IN\_mRNA\_GM\_WTG9\_2\_WT iN\_mRNA\_GM\_dgI4\_F11\_C\_IPW\_WT\_95 iN\_mRNA\_GM\_WTD7\_1\_WT IN\_mRNA\_GM\_WTD7\_2\_WT iN\_mRNA\_GM\_dgI4\_F11\_C\_IPW\_WT\_21 Sample clustering on all genes in bs40 8 80 20 iN\_mRNA\_GM\_dgI4\_F11\_C\_IPW\_WT\_21 8 iN\_mRNA\_MGH\_dgl4\_B11\_C\_IPW\_WT\_3 iN\_mRNA\_MGH\_dgT4\_D7\_C\_CRD\_WT\_61 IN\_mRNA\_GM\_WTH8\_2\_WT iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_34 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_39 iN\_mRNA\_MGH\_dgT4\_F1\_C\_CRD\_WT\_58 IN\_mRNA\_MGH\_WTA6\_WT iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_6 iN\_mRNA\_GM\_dgT4\_D8\_C\_CRD\_WT\_64 iN\_mRNA\_MGH\_dgA3\_D7\_C\_SNORD109a\_WT\_82 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_1 IN\_mRNA\_GM\_WTE9\_WT 50 IN\_mRNA\_GM\_WTG10\_1\_WT iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_28 IN MRNA GM WTF12 WT IN\_mRNA\_MGH\_WTC11\_WT iN\_mRNA\_GM\_dgM4\_C1\_C\_MAGEL2\_WT\_41 IN\_mRNA\_MGH\_WTC4\_WT iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_5 iN\_mRNA\_GM\_dgI4\_C7\_C\_IPW\_WT\_22 iN\_GM\_dgR1\_WTA2\_2 iN\_mRNA\_GM\_dgA3\_D1\_C\_SNORD109a\_WT\_86 iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_35 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_3 IN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_66 iN\_MGH\_dgR1\_WTF10\_1 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_62 iN\_MGH\_dgR1\_WTF10\_2 IN\_mRNA\_MGH\_WTB5\_WT IN\_mRNA\_MGH\_WTB11\_2\_WT iN\_GM\_dgR1\_WTC6\_2 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_4 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_2 iN\_mRNA\_MGH\_dgl4\_B2\_C\_IPW\_WT\_8 iN\_mRNA\_GM\_dgI4\_D2\_C\_IPW\_WT\_23 IN\_MGH\_dgR1\_WTC4\_1 4 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_81 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_80 IN\_mRNA\_MGH\_WTB2\_WT Height iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_84 iN\_MGH\_dgR1\_WTC4\_2 IN\_MGH\_dgR1\_WTB2\_2 iN\_mRNA\_MGH\_dgA3\_A1\_C\_SNORD109a\_WT\_83 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_36 IN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_43 iN\_GM\_dgR1\_WTE5\_1 iN\_mRNA\_GM\_Control\_1\_3 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_37 iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_42 iN\_GM\_dgR1\_WTE5\_3 IN\_mRNA\_GM\_dgA3\_E1\_C\_SNORD109a\_WT\_89 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_87 IN mRNA GM Control 1 2 iN\_mRNA\_MGH\_dgI4\_C1\_C\_IPW\_WT\_5 iN\_mRNA\_GM\_Control\_1\_1 iN\_mRNA\_MGH\_dgI4\_C1\_C\_IPW\_WT\_4 IN\_mRNA\_GM\_WTD7\_1\_WT IN\_mRNA\_GM\_WTA10\_WT 3 iN\_mRNA\_GM\_Control\_1\_7 iN\_mRNA\_GM\_Control\_1\_8 IN\_mRNA\_GM\_WTG9\_1\_WT iN\_mRNA\_GM\_WTG9\_2\_WT iN\_mRNA\_GM\_Control\_1\_5 iN\_mRNA\_GM\_Control\_1\_4

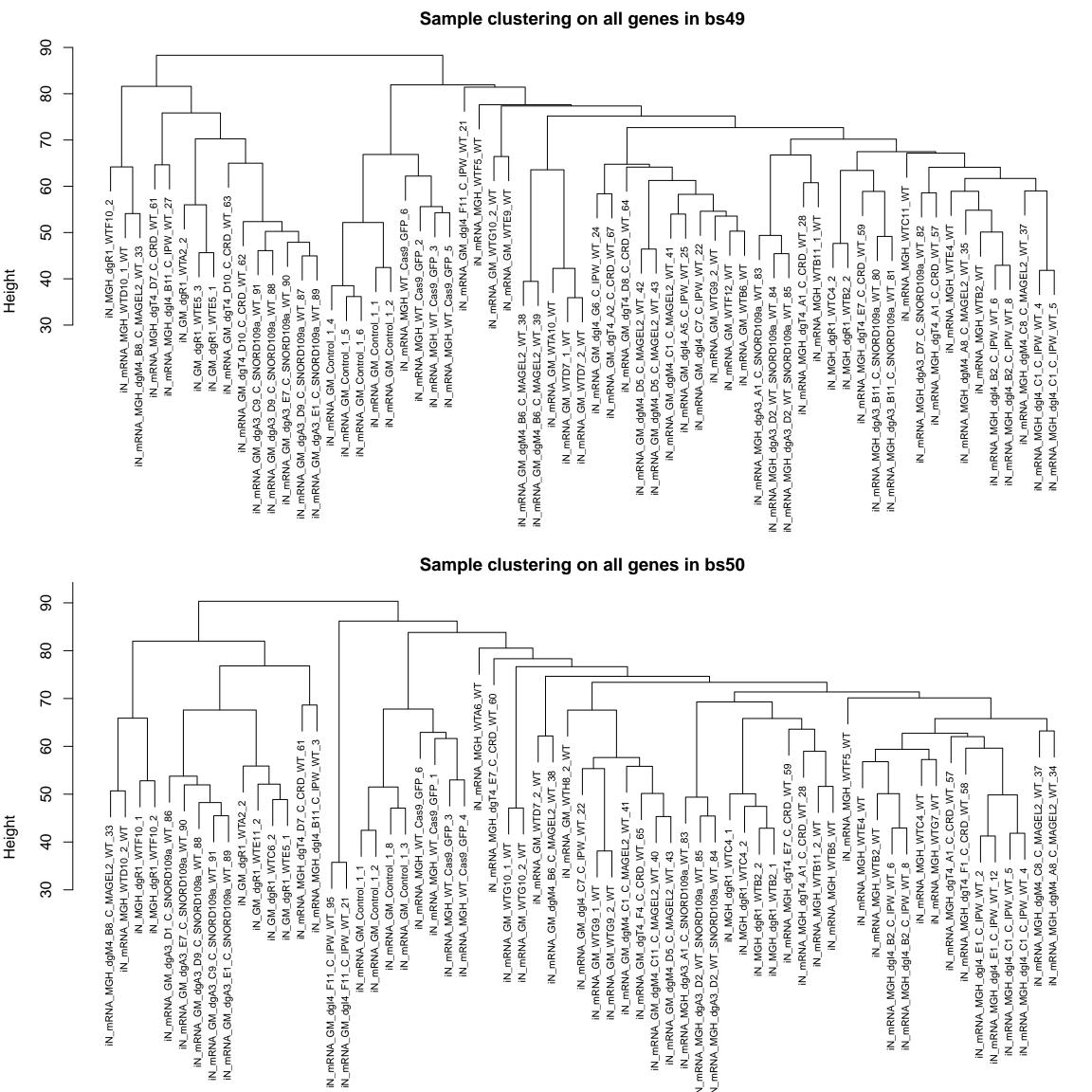
Sample clustering on all genes in bs39

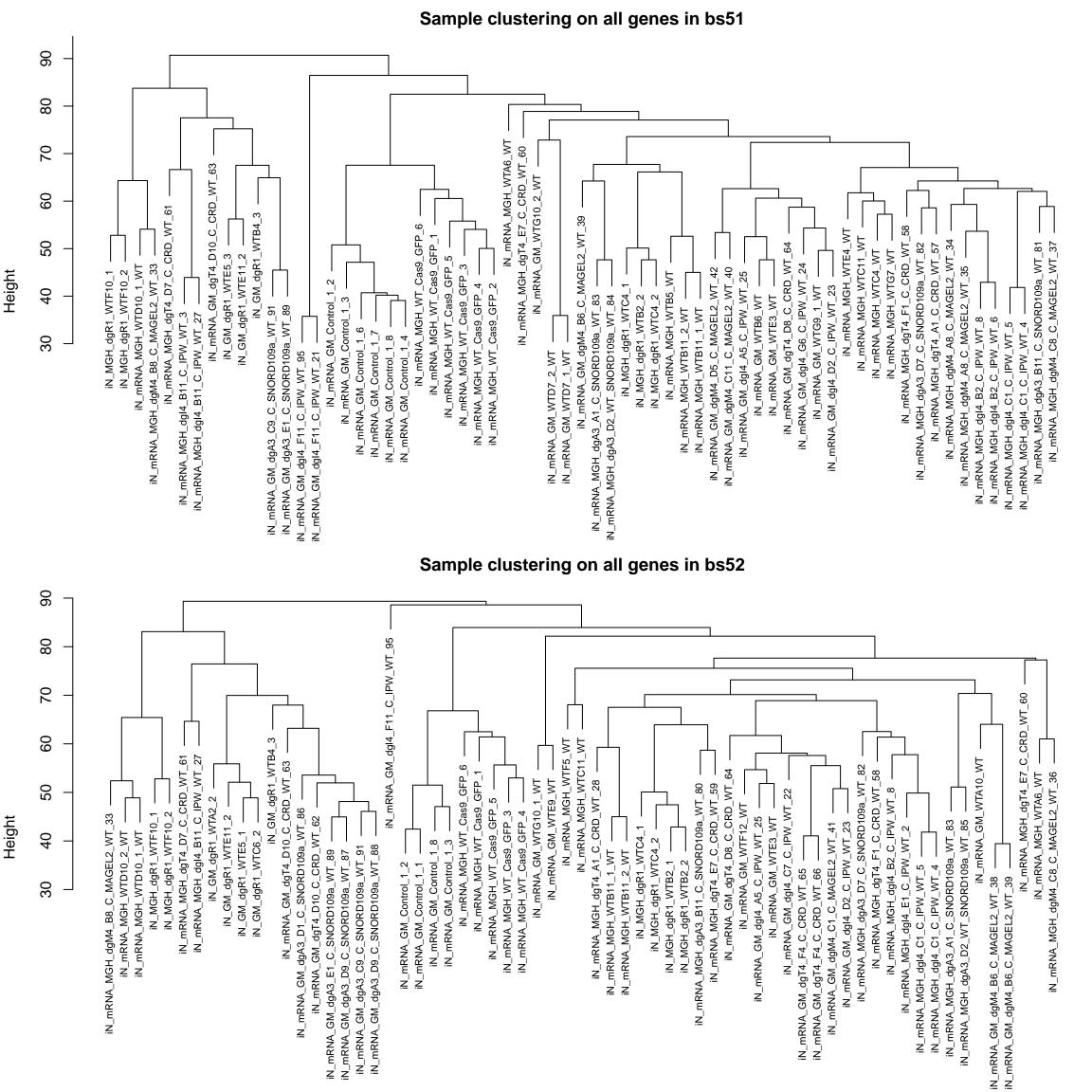
# Sample clustering on all genes in bs41 90 80 iN\_mRNA\_GM\_dgI4\_F11\_C\_IPW\_WT\_95 20 iN\_mRNA\_MGH\_dgl4\_B11\_C\_IPW\_WT\_3 9 iN\_GM\_dgR1\_WTB4\_3 IN\_mRNA\_GM\_WTH8\_2\_WT IN\_mRNA\_MGH\_WTF5\_WT IN\_mRNA\_MGH\_WTC11\_WT iN\_mRNA\_MGH\_dgA3\_D7\_C\_SNORD109a\_WT\_82 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_63 IN\_mRNA\_GM\_WTE9\_WT iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_6 iN\_mRNA\_GM\_dgT4\_D8\_C\_CRD\_WT\_64 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_38 IN MGH dgR1 WTF10 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_36 IN MRNA MGH WTA6 WT IN MRNA MGH WTG7 WT 50 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_80 iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_59 IN\_mRNA\_MGH\_WTE4\_WT IN\_mRNA\_GM\_WTF12\_WT iN\_mRNA\_GM\_dgl4\_C7\_C\_IPW\_WT\_22 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_3 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_2 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_62 iN\_mRNA\_MGH\_dgM4\_B8\_C\_MAGEL2\_WT\_33 IN\_mRNA\_MGH\_WTD10\_1\_WT iN\_GM\_dgR1\_WTE5\_1 iN\_mRNA\_GM\_dgI4\_A5\_C\_IPW\_WT\_25 iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_35 iN\_GM\_dgR1\_WTA2\_2 IN\_mRNA\_GM\_dgM4\_C1\_C\_MAGEL2\_WT\_41 iN\_mRNA\_GM\_dgA3\_D1\_C\_SNORD109a\_WT\_86 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_65 IN\_mRNA\_MGH\_WTB5\_WT iN\_mRNA\_GM\_Control\_1\_2 iN\_mRNA\_MGH\_dgA3\_A1\_C\_SNORD109a\_WT\_83 iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_85 iN\_mRNA\_MGH\_dgl4\_C1\_C\_IPW\_WT\_4 IN\_MGH\_dgR1\_WTC4\_1 iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_42 iN\_mRNA\_MGH\_dgI4\_B2\_C\_IPW\_WT\_8 iN\_mRNA\_GM\_dgl4\_D2\_C\_IPW\_WT\_23 IN\_mRNA\_MGH\_WTB2\_WT 4 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_88 iN\_MGH\_dgR1\_WTC4\_2 iN\_mRNA\_GM\_WTG10\_2\_WT Height IN\_mRNA\_GM\_WTG10\_1\_WT IN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_43 iN\_mRNA\_GM\_dgM4\_C11\_C\_MAGEL2\_WT\_40 iN\_mRNA\_MGH\_WTB11\_1\_WT iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_87 iN\_mRNA\_GM\_dgA3\_E1\_C\_SNORD109a\_WT\_89 IN\_mRNA\_MGH\_WTB11\_2\_WT iN\_MGH\_dgR1\_WTB2\_1 iN\_MGH\_dgR1\_WTB2\_2 iN\_mRNA\_MGH\_dgI4\_E1\_C\_IPW\_WT\_12 iN\_mRNA\_MGH\_dgI4\_E1\_C\_IPW\_WT\_2 iN\_mRNA\_GM\_Control\_1\_7 IN\_mRNA\_GM\_WTA10\_WT IN\_mRNA\_GM\_WTD7\_1\_WT 30 iN\_mRNA\_GM\_Control\_1\_4 IN\_mRNA\_GM\_WTG9\_2\_WT IN\_mRNA\_GM\_WTG9\_1\_WT iN\_mRNA\_GM\_Control\_1\_5 iN\_mRNA\_GM\_Control\_1\_6 Sample clustering on all genes in bs42 8 80 70 IN\_mRNA\_MGH\_WTF5\_WT iN\_mRNA\_MGH\_dgT4\_D7\_C\_CRD\_WT\_61 iN\_GM\_dgR1\_WTB4\_3 9 iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_60 iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_34 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_63 iN\_mRNA\_GM\_dgT4\_A2\_C\_CRD\_WT\_67 IN\_mRNA\_GM\_WTE9\_WT iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_37 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_38 IN\_mRNA\_MGH\_WTG7\_WT IN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_28 50 iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_59 IN\_mRNA\_MGH\_WTE4\_WT iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_2 iN\_mRNA\_GM\_dgA3\_D1\_C\_SNORD109a\_WT\_86 iN\_mRNA\_GM\_dgI4\_G6\_C\_IPW\_WT\_24 iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_35 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_5 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_3 iN\_MGH\_dgR1\_WTF10\_2 iN\_mRNA\_MGH\_dgM4\_B8\_C\_MAGEL2\_WT\_33 iN\_mRNA\_GM\_dgl4\_C7\_C\_IPW\_WT\_22 iN\_mRNA\_GM\_dgl4\_A5\_C\_IPW\_WT\_25 IN\_mRNA\_MGH\_WTD10\_1\_WT iN\_mRNA\_GM\_dgM4\_C1\_C\_MAGEL2\_WT\_41 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_62 Height iN\_MGH\_dgR1\_WTF10\_1 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_65 IN\_mRNA\_MGH\_WTB5\_WT iN\_mRNA\_MGH\_dgI4\_C1\_C\_IPW\_WT\_4 iN\_MGH\_dgR1\_WTC4\_1 IN\_MGH\_dgR1\_WTB2\_1 IN\_mRNA\_GM\_WTB6\_WT IN\_mRNA\_GM\_WTF12\_WT iN\_mRNA\_MGH\_dgl4\_B2\_C\_IPW\_WT\_8 iN\_mRNA\_MGH\_dgA3\_A1\_C\_SNORD109a\_WT\_83 IN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_81 IN\_mRNA\_MGH\_WTB2\_WT IN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_80 4 iN\_mRNA\_GM\_WTG9\_2\_WT iN\_mRNA\_GM\_dgl4\_D2\_C\_IPW\_WT\_23 iN\_mRNA\_GM\_dgA3\_E7\_C\_SNORD109a\_WT\_90 IN\_mRNA\_GM\_WTG10\_2\_WT IN\_mRNA\_GM\_WTG10\_1\_WT iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_42 iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_43 N\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_85 \\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_84 iN\_mRNA\_GM\_dgA3\_E1\_C\_SNORD109a\_WT\_89 iN\_mRNA\_MGH\_WTB11\_2\_WT iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_87 iN\_mRNA\_MGH\_WTB11\_1\_WT iN\_mRNA\_MGH\_dgI4\_E1\_C\_IPW\_WT\_2 . iN\_mRNA\_GM\_Control\_1\_2 IN\_mRNA\_GM\_WTA10\_WT iN\_mRNA\_GM\_Control\_1\_1 IN\_mRNA\_MGH\_dgI4\_E1\_C\_IPW\_WT\_12 iN\_mRNA\_GM\_Control\_1\_6 iN\_mRNA\_GM\_Control\_1\_8 30 iN\_mRNA\_GM\_Control\_1\_4 IN\_mRNA\_GM\_WTD7\_2\_WT iN\_mRNA\_GM\_dgI4\_F11\_C\_IPW\_WT\_95 iN\_mRNA\_GM\_dgI4\_F11\_C\_IPW\_WT\_21 IN\_mRNA\_GM\_WTD7\_1\_WT

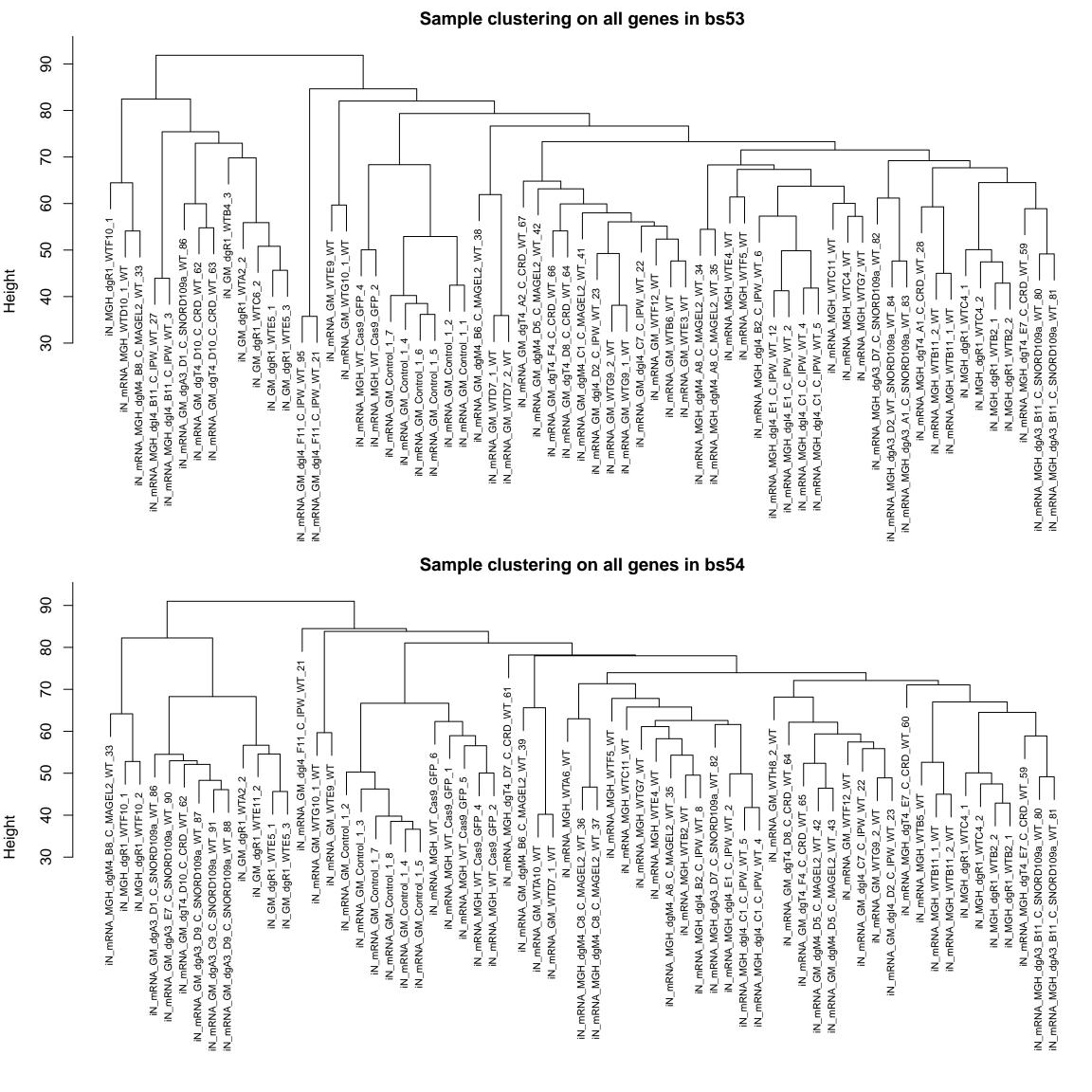


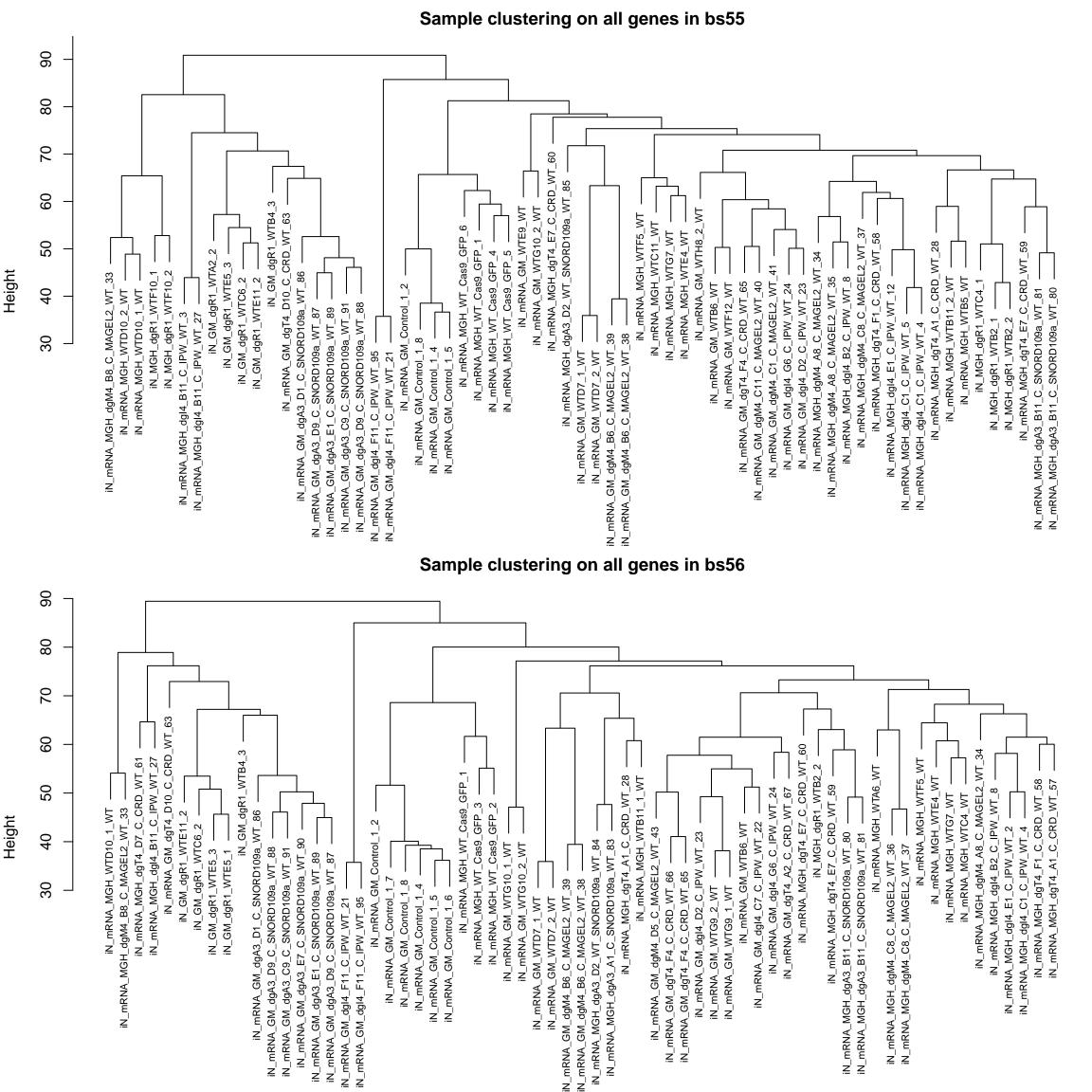
## Sample clustering on all genes in bs45 90 8 20 iN\_mRNA\_MGH\_dgI4\_B11\_C\_IPW\_WT\_27 iN\_GM\_dgR1\_WTB4\_3 9 IN\_mRNA\_GM\_WTH8\_2\_WT IN\_mRNA\_GM\_WTE9\_WT IN\_mRNA\_GM\_WTG10\_2\_WT iN\_MGH\_dgR1\_WTF10\_1 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_63 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_1 iN\_mRNA\_MGH\_WTA6\_WT iN\_mRNA\_GM\_WTD7\_2\_WT iN\_mRNA\_GM\_dgT4\_D8\_C\_CRD\_WT\_64 iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_57 iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_28 IN\_mRNA\_MGH\_WTC11\_WT iN\_mRNA\_MGH\_dgT4\_F1\_C\_CRD\_WT\_58 50 IN\_mRNA\_MGH\_WTB5\_WT iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_80 iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_59 iN\_mRNA\_GM\_dgM4\_C1\_C\_MAGEL2\_WT\_41 IN\_mRNA\_MGH\_WTG7\_WT IN\_mRNA\_MGH\_WTC4\_WT iN\_GM\_dgR1\_WTA2\_2 iN\_mRNA\_GM\_dgl4\_C7\_C\_IPW\_WT\_22 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_3 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_5 iN\_mRNA\_GM\_WTF12\_WT IN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_35 IN\_mRNA\_GM\_WTE3\_WT iN\_GM\_dgR1\_WTE11\_2 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_62 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_66 iN\_mRNA\_MGH\_dgM4\_B8\_C\_MAGEL2\_WT\_33 iN\_GM\_dgR1\_WTC6\_2 Height iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_42 iN\_mRNA\_MGH\_dgI4\_E1\_C\_IPW\_WT\_2 IN\_mRNA\_MGH\_WTB2\_WT IN\_mRNA\_MGH\_dgI4\_B2\_C\_IPW\_WT\_8 6 iN\_mRNA\_MGH\_dgA3\_A1\_C\_SNORD109a\_WT\_83 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_88 IN\_mRNA\_MGH\_WTD10\_2\_WT iN\_mRNA\_MGH\_WTD10\_1\_WT iN\_MGH\_dgR1\_WTC4\_2 IN\_MGH\_dgR1\_WTC4\_1 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_36 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_37 iN\_GM\_dgR1\_WTE5\_1 iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_43 iN\_mRNA\_GM\_dgM4\_C11\_C\_MAGEL2\_WT\_40 iN\_GM\_dgR1\_WTE5\_3 iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_85 iN\_mRNA\_GM\_dgA3\_E1\_C\_SNORD109a\_WT\_89 iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_84 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_87 iN\_mRNA\_GM\_Control\_1\_1 iN\_mRNA\_MGH\_dgl4\_C1\_C\_IPW\_WT\_4 iN\_mRNA\_GM\_Control\_1\_2 IN\_mRNA\_MGH\_dgl4\_C1\_C\_IPW\_WT\_5 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_39 IN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_38 30 IN mRNA GM Control 1 8 iN\_mRNA\_GM\_Control\_1\_4 IN\_mRNA\_GM\_WTG9\_2\_WT IN\_mRNA\_GM\_WTG9\_1\_WT iN\_mRNA\_GM\_Control\_1\_6 iN\_mRNA\_GM\_Control\_1\_5 Sample clustering on all genes in bs46 8 80 20 iN\_mRNA\_MGH\_dgl4\_B11\_C\_IPW\_WT\_3 IN\_mRNA\_GM\_WTG10\_2\_WT IN\_mRNA\_MGH\_WTF5\_WT iN\_GM\_dgR1\_WTB4\_3 9 iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_60 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_3 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_1 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_63 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_80 iN\_mRNA\_GM\_dgT4\_A2\_C\_CRD\_WT\_67 iN\_mRNA\_GM\_dgl4\_F11\_C\_IPW\_WT\_21 IN\_mRNA\_GM\_WTD7\_1\_WT iN\_mRNA\_GM\_dgT4\_D8\_C\_CRD\_WT\_64 50 IN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_57 iN\_mRNA\_MGH\_dgA3\_D7\_C\_SNORD109a\_WT\_82 iN\_mRNA\_MGH\_dgl4\_B2\_C\_IPW\_WT\_6 IN\_mRNA\_MGH\_WTE4\_WT IN\_GM\_dgR1\_WTA2\_2 iN\_mRNA\_GM\_dgA3\_D1\_C\_SNORD109a\_WT\_86 iN\_GM\_dgR1\_WTE11\_2 iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_35 IN\_mRNA\_MGH\_WTC4\_WT iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_34 iN\_mRNA\_GM\_dgl4\_A5\_C\_IPW\_WT\_25 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_62 iN\_mRNA\_MGH\_WTB11\_1\_WT IN\_mRNA\_MGH\_WTB5\_WT IN\_MGH\_dgR1\_WTF10\_1 iN\_mRNA\_MGH\_dgM4\_B8\_C\_MAGEL2\_WT\_33 iN\_MGH\_dgR1\_WTF10\_2 Height IN\_MGH\_dgR1\_WTC4\_1 IN MRNA MGH WTB2 WT IN\_mRNA\_MGH\_WTG7\_WT iN\_mRNA\_MGH\_dgl4\_E1\_C\_IPW\_WT\_2 IN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_42 IN\_mRNA\_GM\_WTF12\_WT IN\_mRNA\_GM\_WTB6\_WT 4 iN\_mRNA\_MGH\_dgA3\_A1\_C\_SNORD109a\_WT\_83 iN\_mRNA\_GM\_dgA3\_E7\_C\_SNORD109a\_WT\_90 iN\_mRNA\_GM\_dgI4\_D2\_C\_IPW\_WT\_23 IN\_mRNA\_MGH\_WTD10\_1\_WT IN\_mRNA\_MGH\_WTD10\_2\_WT iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_87 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_36 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_37 iN\_GM\_dgR1\_WTE5\_1 iN\_GM\_dgR1\_WTE5\_3 iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_84 iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_85 iN\_mRNA\_GM\_dgM4\_C11\_C\_MAGEL2\_WT\_40 iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_43 IN\_MGH\_dgR1\_WTB2\_1 IN\_MGH\_dgR1\_WTB2\_2 iN\_mRNA\_GM\_Control\_1\_2 iN\_mRNA\_MGH\_dgI4\_C1\_C\_IPW\_WT\_5 iN\_mRNA\_GM\_Control\_1\_1 IN\_mRNA\_MGH\_dgI4\_C1\_C\_IPW\_WT\_4 iN\_mRNA\_GM\_Control\_1\_7 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_39 30 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_38 iN\_mRNA\_GM\_Control\_1\_8 iN\_mRNA\_GM\_WTG9\_2\_WT IN\_mRNA\_GM\_WTG9\_1\_WT iN\_mRNA\_GM\_Control\_1\_4 IN\_mRNA\_GM\_Control\_1\_5

# Sample clustering on all genes in bs47 8 80 70 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_63 9 iN\_mRNA\_MGH\_dgl4\_B11\_C\_IPW\_WT\_3 iN\_mRNA\_MGH\_dgT4\_D7\_C\_CRD\_WT\_61 iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_60 IN\_mRNA\_MGH\_WTF5\_WT IN\_mRNA\_GM\_WTG10\_2\_WT IN\_mRNA\_GM\_WTE9\_WT IN\_mRNA\_GM\_WTH8\_2\_WT iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_39 iN\_mRNA\_MGH\_dgA3\_D7\_C\_SNORD109a\_WT\_82 iN\_mRNA\_MGH\_dgT4\_F1\_C\_CRD\_WT\_58 IN\_mRNA\_MGH\_WTC11\_WT IN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_80 iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_59 50 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_1 IN\_mRNA\_MGH\_WTG7\_WT iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_5 IN\_mRNA\_MGH\_WTC4\_WT iN\_GM\_dgR1\_WTE5\_3 iN\_GM\_dgR1\_WTE11\_2 iN\_mRNA\_GM\_dgl4\_C7\_C\_IPW\_WT\_22 iN\_mRNA\_GM\_dgM4\_C11\_C\_MAGEL2\_WT\_40 IN\_mRNA\_GM\_WTF12\_WT iN\_mRNA\_GM\_WTG9\_2\_WT iN\_mRNA\_GM\_dgM4\_C1\_C\_MAGEL2\_WT\_41 iN\_mRNA\_GM\_dgl4\_A5\_C\_IPW\_WT\_25 iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_35 iN\_MGH\_dgR1\_WTF10\_1 iN\_MGH\_dgR1\_WTF10\_2 Height iN\_mRNA\_GM\_dgA3\_D1\_C\_SNORD109a\_WT\_86 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_88 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_4 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_2 iN\_mRNA\_MGH\_dgl4\_E1\_C\_IPW\_WT\_12 iN\_mRNA\_MGH\_dgA3\_A1\_C\_SNORD109a\_WT\_83 IN\_mRNA\_MGH\_dgM4\_B8\_C\_MAGEL2\_WT\_ iN\_MGH\_dgR1\_WTC4\_1 iN\_mRNA\_MGH\_WTD10\_1\_WT IN\_mRNA\_MGH\_WTD10\_2\_WT 4 iN\_mRNA\_GM\_dgA3\_E7\_C\_SNORD109a\_WT\_90 iN\_MGH\_dgR1\_WTB2\_1 IN\_MGH\_dgR1\_WTC4\_2 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_36 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_37 iN\_mRNA\_GM\_Control\_1\_3 N\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_85 N\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_84 iN\_mRNA\_GM\_dgA3\_E1\_C\_SNORD109a\_WT\_89 IN\_mRNA\_MGH\_WTB11\_1\_WT IN\_mRNA\_MGH\_WTB11\_2\_WT iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_87 iN\_mRNA\_MGH\_dgI4\_B2\_C\_IPW\_WT\_6 iN\_mRNA\_MGH\_dgI4\_B2\_C\_IPW\_WT\_8 iN\_mRNA\_GM\_Control\_1\_2 IN\_mRNA\_GM\_WTA10\_WT iN\_mRNA\_GM\_Control\_1\_1 IN\_mRNA\_MGH\_dgI4\_C1\_C\_IPW\_WT\_4 IN\_mRNA\_MGH\_dgI4\_C1\_C\_IPW\_WT\_5 IN mRNA GM Control 1 7 iN\_mRNA\_GM\_Control\_1\_8 iN\_mRNA\_GM\_Control\_1\_4 30 iN\_mRNA\_GM\_dgl4\_F11\_C\_IPW\_WT\_95 IN\_mRNA\_GM\_WTD7\_1\_WT iN\_mRNA\_GM\_dgI4\_F11\_C\_IPW\_WT\_21 IN\_mRNA\_GM\_WTD7\_2\_WT Sample clustering on all genes in bs48 8 8 20 iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_60 9 iN\_mRNA\_GM\_WTG10\_2\_WT iN\_mRNA\_MGH\_dgT4\_D7\_C\_CRD\_WT\_61 IN MRNA GM WTE9 WT iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_63 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_39 iN\_MGH\_dgR1\_WTF10\_1 IN\_mRNA\_MGH\_WTA6\_WT iN\_mRNA\_MGH\_dgT4\_F1\_C\_CRD\_WT\_58 IN mRNA MGH WT Cas9 GFP 1 iN\_mRNA\_MGH\_dgA3\_D7\_C\_SNORD109a\_WT\_82 IN\_mRNA\_MGH\_WTF5\_WT iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_28 50 iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_59 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_80 iN\_mRNA\_GM\_dgT4\_D8\_C\_CRD\_WT\_64 iN\_GM\_dgR1\_WTA2\_2 iN\_mRNA\_GM\_dgI4\_C7\_C\_IPW\_WT\_22 iN\_GM\_dgR1\_WTE11\_2 iN\_mRNA\_MGH\_dgI4\_B2\_C\_IPW\_WT\_6 IN\_mRNA\_MGH\_WT\_Cas9\_GFP\_5 iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_35 iN\_GM\_dgR1\_WTE5\_3 iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_42 IN\_mRNA\_MGH\_WTE4\_WT iN\_mRNA\_GM\_dgI4\_G6\_C\_IPW\_WT\_24 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_4 Height IN\_mRNA\_MGH\_WT\_Cas9\_GFP\_3 IN\_mRNA\_MGH\_WTB5\_WT iN\_mRNA\_GM\_dgl4\_A5\_C\_IPW\_WT\_25 iN\_mRNA\_MGH\_dgM4\_B8\_C\_MAGEL2\_WT\_33 IN\_mRNA\_MGH\_WTG7\_WT IN\_mRNA\_MGH\_WTB2\_WT iN\_mRNA\_MGH\_dgI4\_E1\_C\_IPW\_WT\_12 iN\_mRNA\_GM\_dgI4\_D2\_C\_IPW\_WT\_23 iN\_mRNA\_GM\_WTG9\_1\_WT 4 IN\_mRNA\_MGH\_WTD10\_2\_WT IN\_mRNA\_MGH\_WTD10\_1\_WT iN\_MGH\_dgR1\_WTC4\_2 iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_84 iN\_mRNA\_MGH\_dgA3\_A1\_C\_SNORD109a\_WT\_83 iN\_MGH\_dgR1\_WTC4\_1 IN\_mRNA\_GM\_WTE3\_WT IN\_mRNA\_GM\_WTB6\_WT iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_36 IN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_37 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_88 iN\_mRNA\_GM\_dgA3\_C9\_C\_SNORD109a\_WT\_91 iN\_mRNA\_GM\_dgA3\_E1\_C\_SNORD109a\_WT\_89 IN\_mRNA\_MGH\_WTB11\_1\_WT IN\_mRNA\_MGH\_WTB11\_2\_WT iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_87 iN\_mRNA\_MGH\_dgl4\_B11\_C\_IPW\_WT\_3 iN\_mRNA\_MGH\_dgI4\_B11\_C\_IPW\_WT\_27 iN\_mRNA\_GM\_Control\_1\_2 iN\_mRNA\_GM\_Control\_1\_1 iN\_mRNA\_MGH\_dgI4\_C1\_C\_IPW\_WT\_4 iN\_mRNA\_MGH\_dgI4\_C1\_C\_IPW\_WT\_5 iN\_mRNA\_GM\_Control\_1\_6 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_66 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_65 iN\_mRNA\_GM\_Control\_1\_8 IN\_mRNA\_GM\_Control\_1\_7 30 iN\_mRNA\_GM\_dgl4\_F11\_C\_IPW\_WT\_95 iN\_mRNA\_GM\_dgI4\_F11\_C\_IPW\_WT\_21



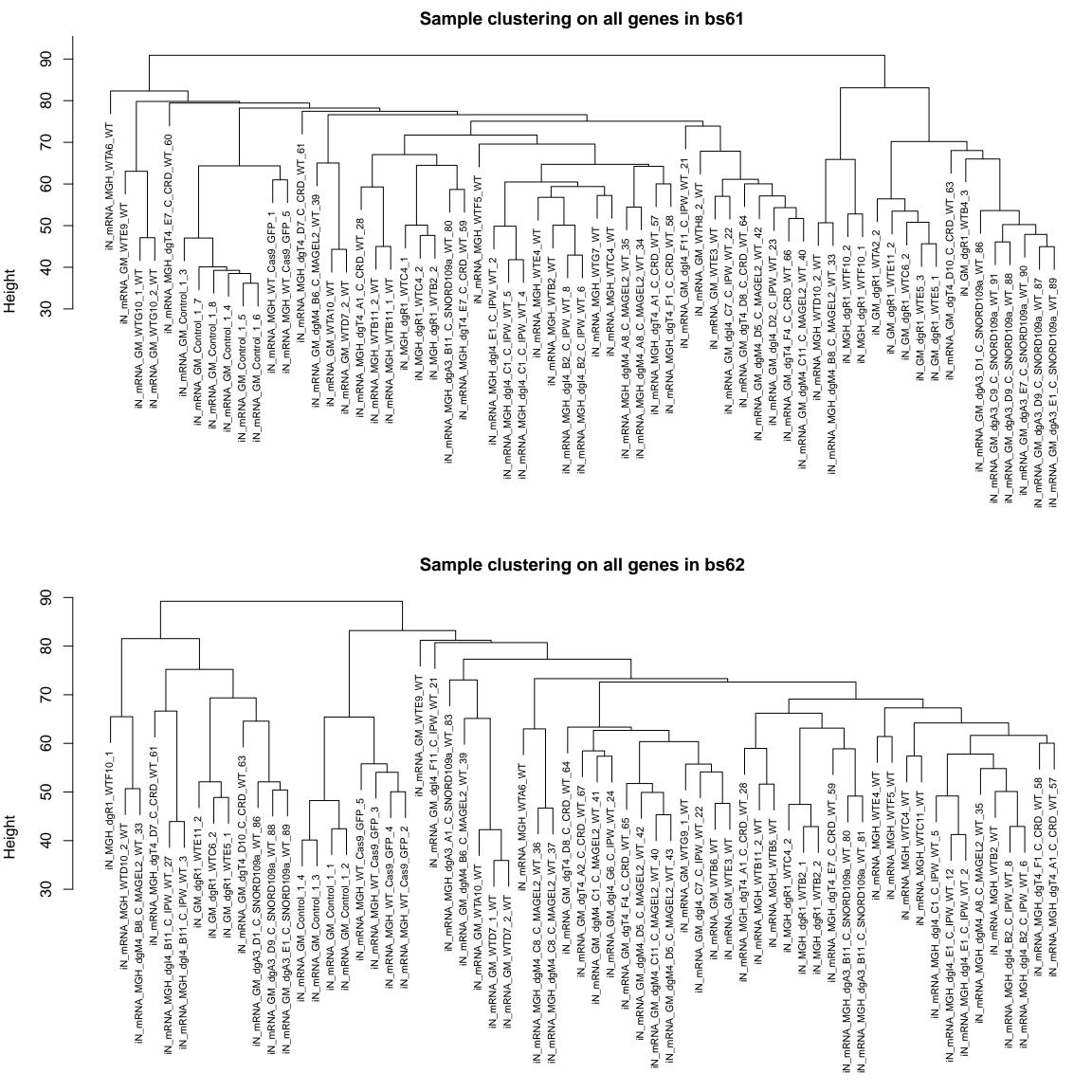




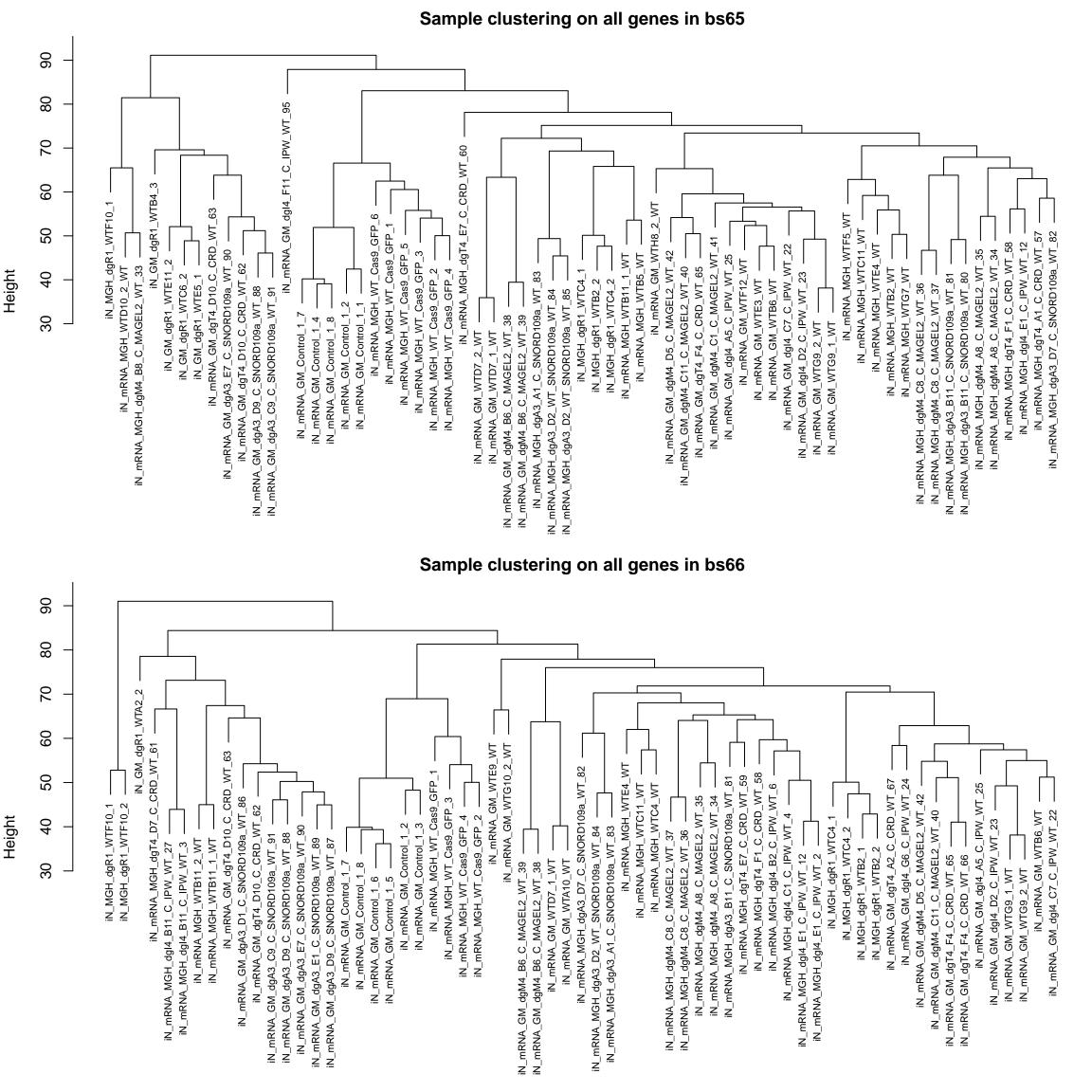


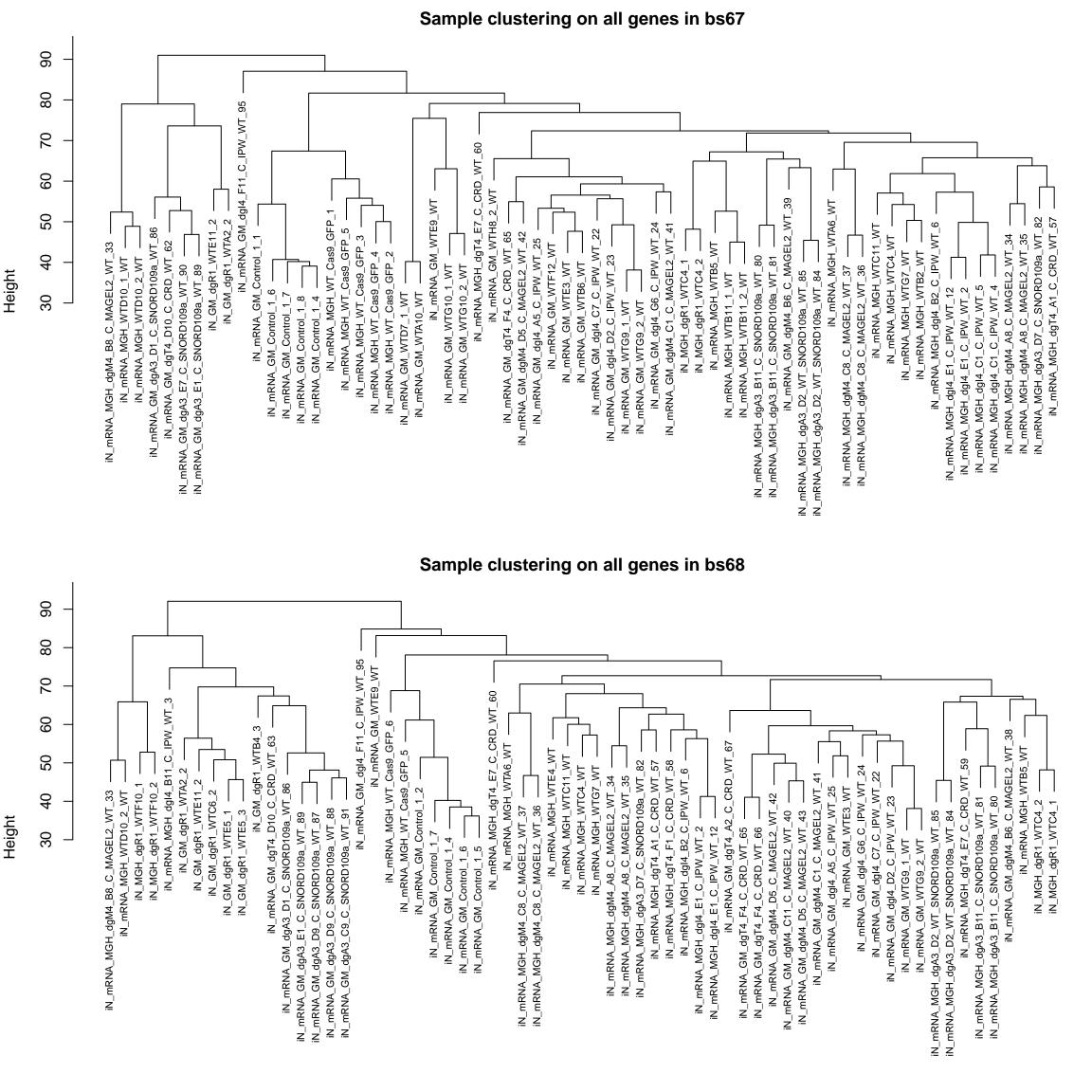
#### 90 80 iN\_mRNA\_GM\_dgl4\_F11\_C\_IPW\_WT\_95 IN\_mRNA\_MGH\_WTA6\_WT iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_60 2 IN\_mRNA\_GM\_WTG10\_1\_WT 9 iN\_GM\_dgR1\_WTB4\_3 iN\_mRNA\_MGH\_dgT4\_D7\_C\_CRD\_WT\_61 iN\_mRNA\_GM\_dgT4\_A2\_C\_CRD\_WT\_67 iN\_mRNA\_GM\_dgT4\_D8\_C\_CRD\_WT\_64 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_6 iN\_mRNA\_MGH\_dgA3\_D7\_C\_SNORD109a\_WT\_82 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_81 iN\_mRNA\_MGH\_dgT4\_F1\_C\_CRD\_WT\_58 50 iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_28 IN\_mRNA\_MGH\_WTC11\_WT iN\_mRNA\_MGH\_dgl4\_B2\_C\_IPW\_WT\_6 IN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_35 iN\_mRNA\_GM\_dgI4\_C7\_C\_IPW\_WT\_22 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_62 IN\_GM\_dgR1\_WTE5\_3 iN\_mRNA\_GM\_Control\_1\_1 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_3 IN\_mRNA\_MGH\_WT\_Cas9\_GFP\_4 iN\_mRNA\_GM\_dgI4\_A5\_C\_IPW\_WT\_25 iN\_mRNA\_GM\_dgA3\_D1\_C\_SNORD109a\_WT\_86 IN mRNA GM WTF12 WT IN\_GM\_dgR1\_WTC6\_2 IN\_mRNA\_MGH\_WTB11\_2\_WT IN\_mRNA\_MGH\_WTB5\_WT iN\_GM\_dgR1\_WTE11\_2 IN\_mRNA\_MGH\_WTB2\_WT IN\_mRNA\_MGH\_WTG7\_WT Height iN\_mRNA\_MGH\_dgA3\_A1\_C\_SNORD109a\_WT\_83 4 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_88 IN\_mRNA\_MGH\_WTD10\_1\_WT IN\_mRNA\_MGH\_WTD10\_2\_WT IN\_mRNA\_GM\_WTE3\_WT IN\_MGH\_dgR1\_WTC4\_2 IN\_MGH\_dgR1\_WTB2\_1 iN\_mRNA\_GM\_Control\_1\_3 iN\_mRNA\_GM\_WTB6\_WT iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_37 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_36 iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_84 iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_85 iN\_mRNA\_GM\_dgM4\_C11\_C\_MAGEL2\_WT\_40 iN\_mRNA\_GM\_dgA3\_E1\_C\_SNORD109a\_WT\_89 iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_43 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_87 iN\_mRNA\_MGH\_dgl4\_B11\_C\_IPW\_WT\_3 iN\_mRNA\_MGH\_dgI4\_B11\_C\_IPW\_WT\_27 iN\_mRNA\_MGH\_dgI4\_C1\_C\_IPW\_WT\_5 IN\_mRNA\_GM\_WTA10\_WT iN\_mRNA\_MGH\_dgI4\_C1\_C\_IPW\_WT\_4 iN\_mRNA\_MGH\_dgI4\_E1\_C\_IPW\_WT\_2 IN\_mRNA\_MGH\_dgI4\_E1\_C\_IPW\_WT\_12 iN\_mRNA\_GM\_Control\_1\_7 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_39 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_38 30 iN\_mRNA\_GM\_Control\_1\_4 IN\_mRNA\_GM\_WTG9\_2\_WT IN\_mRNA\_GM\_WTG9\_1\_WT iN\_mRNA\_GM\_Control\_1\_5 iN\_mRNA\_GM\_Control\_1\_6 IN\_mRNA\_GM\_WTD7\_2\_WT IN\_mRNA\_GM\_WTD7\_1\_WT Sample clustering on all genes in bs60 8 80 20 iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_60 iN\_mRNA\_MGH\_dgI4\_B11\_C\_IPW\_WT\_27 9 iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_34 IN\_mRNA\_MGH\_WTD10\_2\_WT iN\_MGH\_dgR1\_WTF10\_1 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_63 IN\_mRNA\_GM\_dgT4\_A2\_C\_CRD\_WT\_67 iN\_mRNA\_GM\_dgI4\_F11\_C\_IPW\_WT\_21 IN\_mRNA\_GM\_WTE9\_WT iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_6 iN\_mRNA\_GM\_dgT4\_D8\_C\_CRD\_WT\_64 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_1 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_36 IN\_mRNA\_MGH\_WTA6\_WT 50 IN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_59 iN\_mRNA\_GM\_dgM4\_C1\_C\_MAGEL2\_WT\_41 IN\_mRNA\_MGH\_WTC11\_WT iN\_mRNA\_MGH\_WTC4\_WT IN\_mRNA\_MGH\_WTE4\_WT iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_5 iN\_mRNA\_GM\_dgl4\_A5\_C\_IPW\_WT\_25 IN\_GM\_dgR1\_WTE11\_2 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_4 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_3 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_62 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_66 IN\_mRNA\_MGH\_WTB5\_WT IN\_mRNA\_GM\_WTF12\_WT iN\_mRNA\_GM\_dgA3\_D1\_C\_SNORD109a\_WT\_86 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_88 iN\_GM\_dgR1\_WTC6\_2 IN\_MGH\_dgR1\_WTC4\_1 IN\_mRNA\_MGH\_WTB2\_WT iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_42 40 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_80 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_81 IN\_MGH\_dgR1\_WTC4\_2 IN\_mRNA\_GM\_WTE3\_WT iN\_mRNA\_GM\_WTB6\_WT iN\_mRNA\_GM\_dgA3\_E7\_C\_SNORD109a\_WT\_90 iN\_mRNA\_GM\_dgA3\_E1\_C\_SNORD109a\_WT\_89 IN\_mRNA\_GM\_WTG10\_1\_WT IN\_mRNA\_GM\_WTG10\_2\_WT iN\_GM\_dgR1\_WTE5\_3 iN\_mRNA\_GM\_dgM4\_C11\_C\_MAGEL2\_WT\_40 iN\_mRNA\_GM\_Control\_1\_6 iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_84 iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_85 iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_43 IN\_mRNA\_MGH\_WTB11\_2\_WT iN\_GM\_dgR1\_WTE5\_1 IN\_mRNA\_MGH\_WTB11\_1\_WT Height iN\_mRNA\_MGH\_dgl4\_B2\_C\_IPW\_WT\_8 IN\_MGH\_dgR1\_WTB2\_1 iN\_MGH\_dgR1\_WTB2\_2 iN\_mRNA\_MGH\_dgI4\_B2\_C\_IPW\_WT\_6 IN\_mRNA\_GM\_WTA10\_WT iN\_mRNA\_MGH\_dgI4\_C1\_C\_IPW\_WT\_5 iN\_mRNA\_MGH\_dgI4\_C1\_C\_IPW\_WT\_4 iN\_mRNA\_GM\_Control\_1\_4 30 iN\_mRNA\_GM\_Control\_1\_3 IN\_mRNA\_GM\_WTG9\_2\_WT iN\_mRNA\_GM\_WTG9\_1\_WT IN\_mRNA\_GM\_WTD7\_1\_WT IN\_mRNA\_GM\_WTD7\_2\_WT

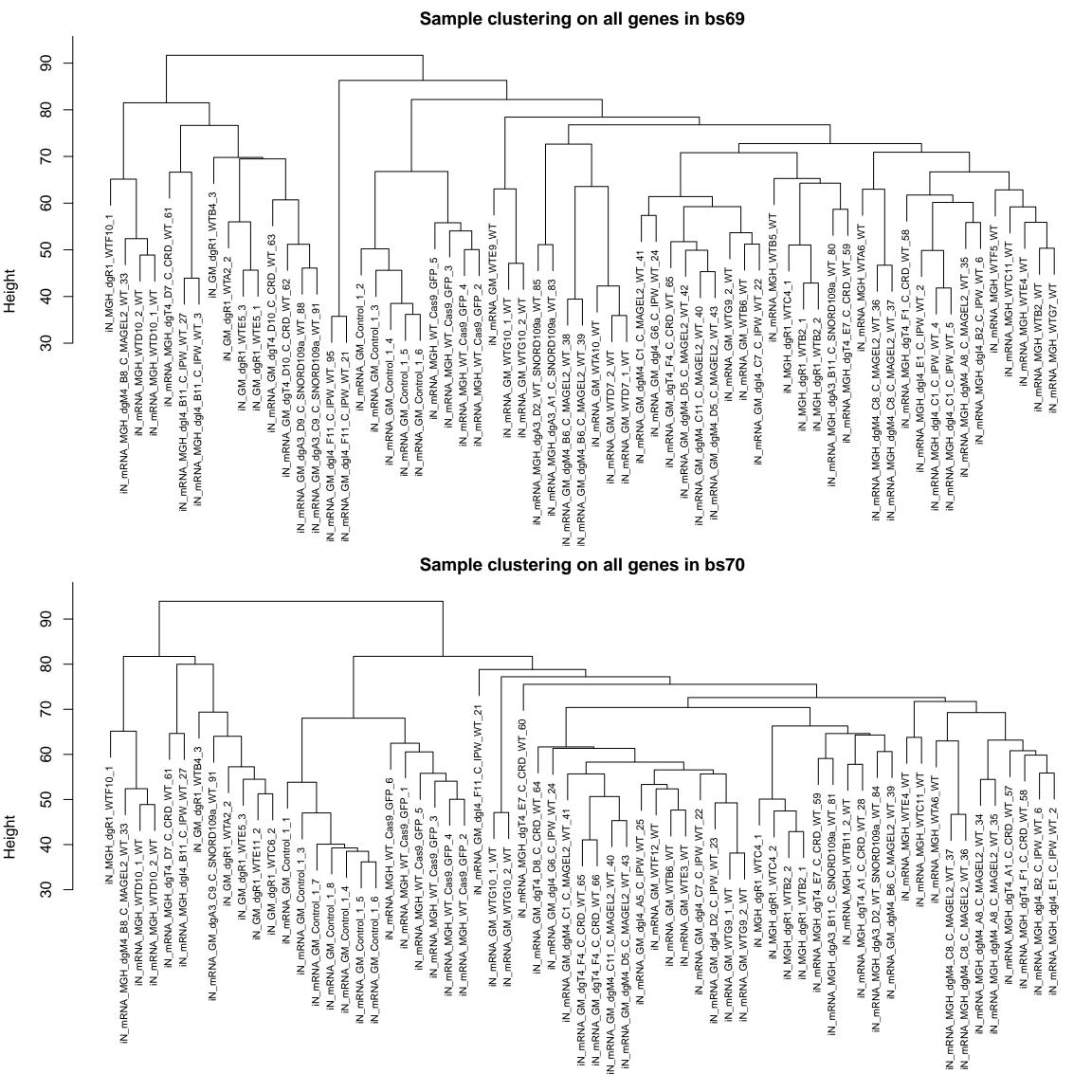
Sample clustering on all genes in bs59

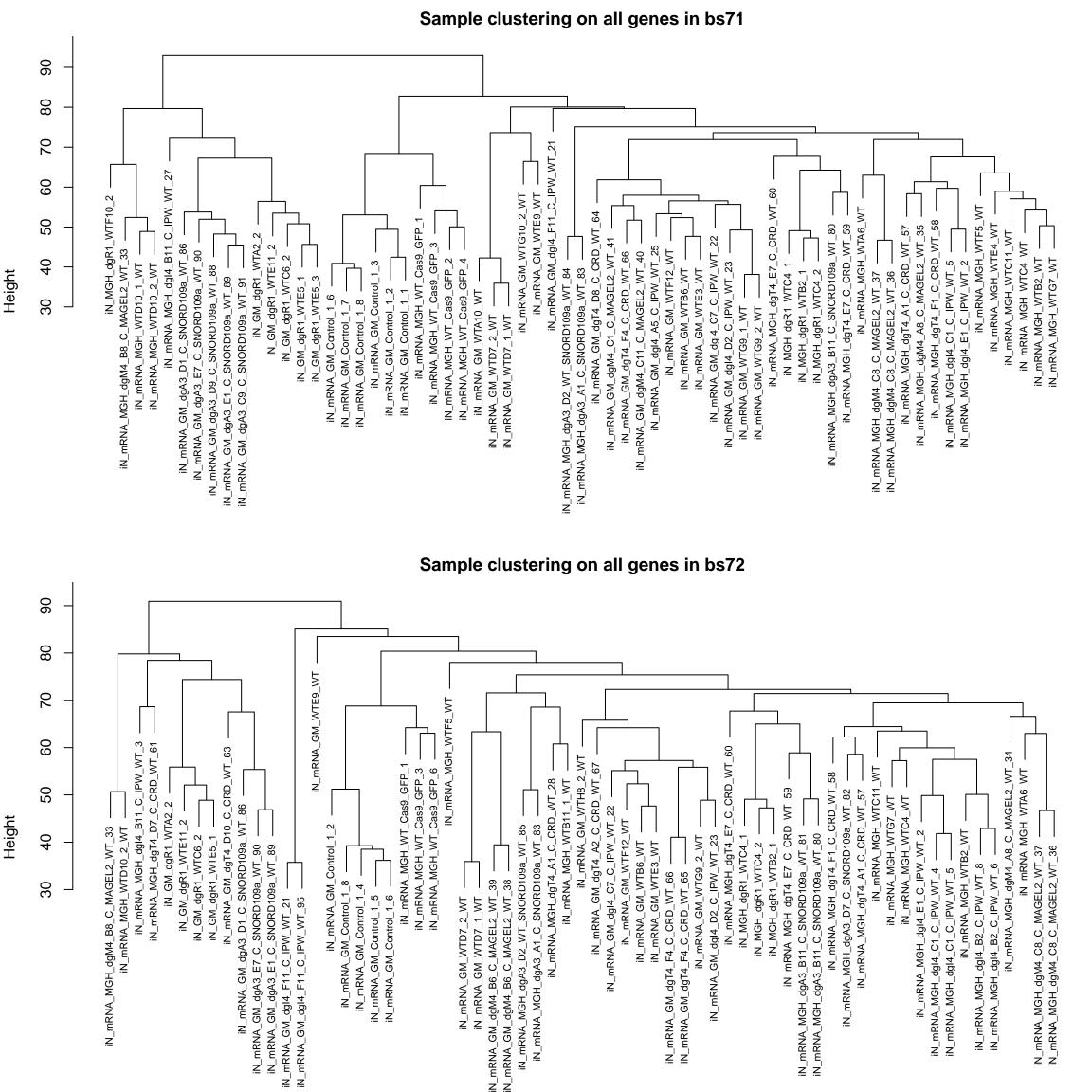


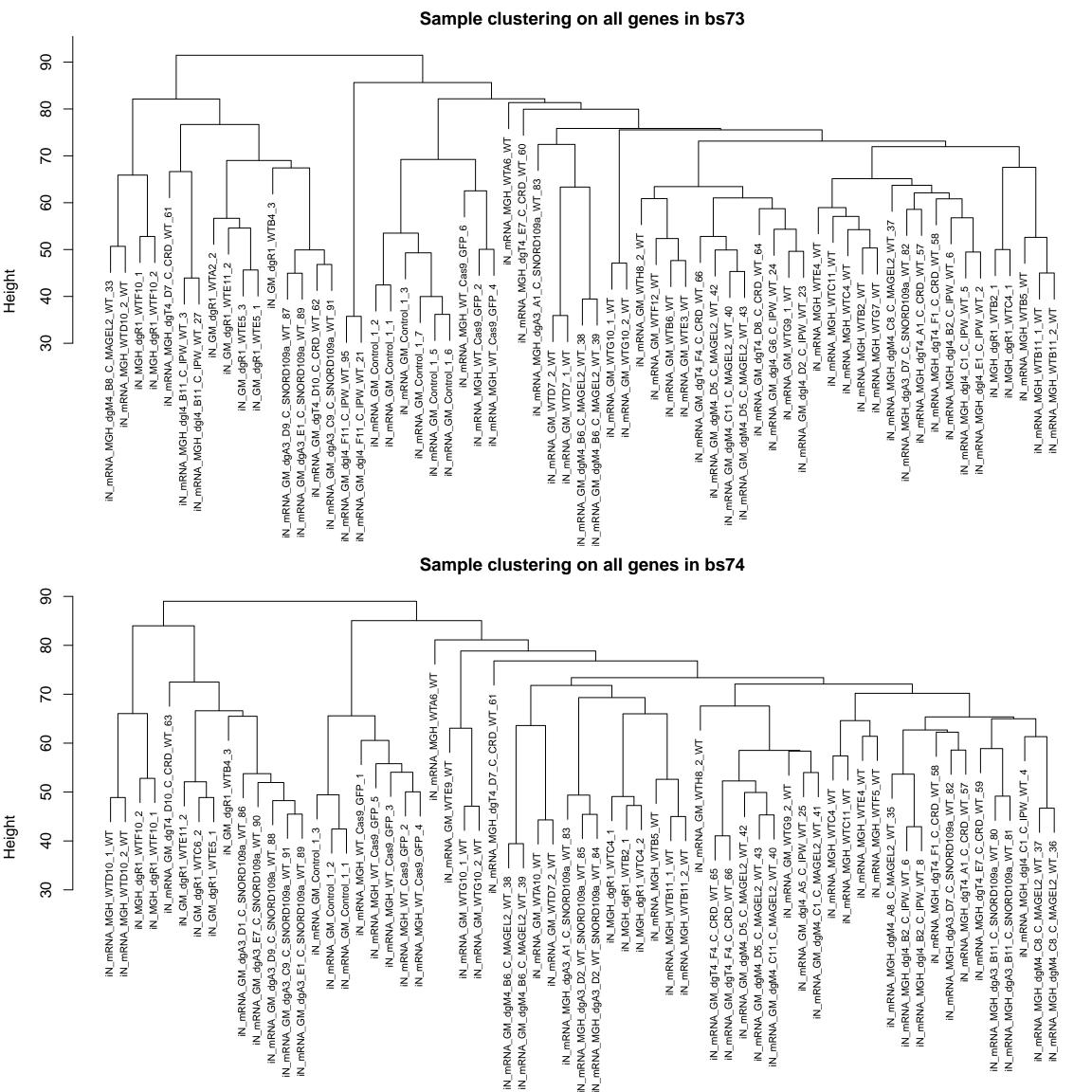
# Sample clustering on all genes in bs63 90 80 iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_60 20 IN\_mRNA\_GM\_WTG10\_1\_WT iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_85 9 iN\_mRNA\_MGH\_dgT4\_D7\_C\_CRD\_WT\_61 iN\_mRNA\_MGH\_dgl4\_B11\_C\_IPW\_WT\_3 IN\_MGH\_dgR1\_WTF10\_1 IN\_mRNA\_MGH\_WTF5\_WT iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_34 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_6 iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_28 iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_59 50 IN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_81 iN\_mRNA\_GM\_dgl4\_G6\_C\_IPW\_WT\_24 iN\_mRNA\_MGH\_dgT4\_F1\_C\_CRD\_WT\_58 iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_57 iN\_mRNA\_MGH\_dgA3\_D7\_C\_SNORD109a\_WT\_82 iN\_mRNA\_GM\_dgT4\_A2\_C\_CRD\_WT\_67 IN\_mRNA\_MGH\_WTC11\_WT iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_3 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_2 iN\_mRNA\_GM\_dgl4\_C7\_C\_IPW\_WT\_22 iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_42 iN\_GM\_dgR1\_WTE11\_2 iN\_mRNA\_GM\_dgA3\_D1\_C\_SNORD109a\_WT\_86 IN\_mRNA\_MGH\_WTC4\_WT IN\_mRNA\_MGH\_WTB11\_1\_WT iN\_mRNA\_GM\_dgl4\_A5\_C\_IPW\_WT\_25 IN\_mRNA\_MGH\_WTB5\_WT iN\_mRNA\_GM\_dgA3\_E7\_C\_SNORD109a\_WT\_90 Height iN\_mRNA\_MGH\_dgM4\_B8\_C\_MAGEL2\_WT\_33 iN\_mRNA\_MGH\_WTD10\_1\_WT — IN\_mRNA\_GM\_WTF12\_WT iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_62 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_66 iN\_mRNA\_GM\_dgM4\_C11\_C\_MAGEL2\_WT\_40 iN\_mRNA\_GM\_Control\_1\_2 IN\_mRNA\_MGH\_WTG7\_WT IN\_mRNA\_MGH\_WTB2\_WT iN\_mRNA\_MGH\_dgI4\_C1\_C\_IPW\_WT\_5 4 IN\_mRNA\_MGH\_WTD10\_2\_WT iN\_MGH\_dgR1\_WTC4\_2 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_87 IN\_mRNA\_GM\_WTB6\_WT IN\_mRNA\_GM\_WTE3\_WT IN\_MGH\_dgR1\_WTC4\_1 IN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_37 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_88 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_36 iN\_mRNA\_GM\_dgA3\_C9\_C\_SNORD109a\_WT\_91 iN\_GM\_dgR1\_WTE5\_3 IN\_GM\_dgR1\_WTE5\_1 IN\_mRNA\_GM\_WTA10\_WT iN\_mRNA\_MGH\_dgI4\_E1\_C\_IPW\_WT\_12 iN\_mRNA\_MGH\_dgI4\_E1\_C\_IPW\_WT\_2 iN\_mRNA\_GM\_Control\_1\_7 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_38 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_39 IN\_mRNA\_GM\_Control\_1\_4 iN\_mRNA\_GM\_Control\_1\_8 30 IN\_mRNA\_GM\_WTG9\_2\_WT IN\_mRNA\_GM\_WTG9\_1\_WT iN\_mRNA\_GM\_dgI4\_F11\_C\_IPW\_WT\_95 IN\_mRNA\_GM\_WTD7\_1\_WT IN\_mRNA\_GM\_WTD7\_2\_WT iN\_mRNA\_GM\_dgI4\_F11\_C\_IPW\_WT\_21 Sample clustering on all genes in bs64 8 80 IN\_mRNA\_MGH\_WTA6\_WT 20 9 iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_60 iN\_GM\_dgR1\_WTB4\_3 IN\_mRNA\_GM\_WTH8\_2\_WT iN\_mRNA\_GM\_dgT4\_A2\_C\_CRD\_WT\_67 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_6 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_63 IN\_mRNA\_MGH\_WTE4\_WT $iN\_mRNA\_GM\_dgT4\_D8\_C\_CRD\_WT\_64$ iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_37 iN\_mRNA\_MGH\_WTF5\_WT iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_28 iN\_mRNA\_MGH\_WTB11\_1\_WT iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_1 50 iN\_mRNA\_MGH\_dgA3\_D7\_C\_SNORD109a\_WT\_82 iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_57 IN\_mRNA\_MGH\_WT\_Cas9\_GFP\_5 iN\_mRNA\_GM\_dgM4\_C1\_C\_MAGEL2\_WT\_41 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_62 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_3 $iN\_mRNA\_GM\_dgI4\_G6\_C\_IPW\_WT\_24$ iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_35 Height IN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_66 iN\_MGH\_dgR1\_WTF10\_2 iN\_mRNA\_GM\_Control\_1\_1 iN\_MGH\_dgR1\_WTF10\_1 iN\_mRNA\_GM\_dgl4\_A5\_C\_IPW\_WT\_25 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_4 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_2 iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_42 IN\_MGH\_dgR1\_WTC4\_1 iN\_mRNA\_GM\_dgl4\_D2\_C\_IPW\_WT\_23 iN\_mRNA\_GM\_WTG9\_1\_WT iN\_mRNA\_MGH\_dgA3\_A1\_C\_SNORD109a\_WT\_83 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_80 4 iN\_mRNA\_MGH\_dgl4\_E1\_C\_IPW\_WT\_12 iN\_mRNA\_MGH\_dgl4\_C1\_C\_IPW\_WT\_5 IN\_mRNA\_MGH\_WTD10\_1\_WT iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_81 iN\_mRNA\_MGH\_WTD10\_2\_WT iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_87 IN\_mRNA\_GM\_WTE3\_WT iN\_MGH\_dgR1\_WTB2\_2 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_88 iN\_MGH\_dgR1\_WTC4\_2 IN\_mRNA\_GM\_WTB6\_WT iN\_GM\_dgR1\_WTE5\_3 J\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_84 J\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_85 IN\_GM\_dgR1\_WTE5\_1 IN\_mRNA\_GM\_dgM4\_C11\_C\_MAGEL2\_WT\_40 iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_43 iN\_mRNA\_MGH\_dgl4\_B11\_C\_IPW\_WT\_27 iN\_mRNA\_MGH\_dgl4\_B11\_C\_IPW\_WT\_3 iN\_mRNA\_MGH\_dgl4\_B2\_C\_IPW\_WT\_8 iN\_mRNA\_MGH\_dgl4\_B2\_C\_IPW\_WT\_6 IN\_mRNA\_GM\_WTA10\_WT iN\_mRNA\_GM\_Control\_1\_4 iN\_mRNA\_GM\_Control\_1\_7 N\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_38 N\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_39 30 iN\_mRNA\_GM\_dgI4\_F11\_C\_IPW\_WT\_21 iN\_mRNA\_GM\_dgI4\_F11\_C\_IPW\_WT\_95 IN\_mRNA\_GM\_WTD7\_2\_WT IN\_mRNA\_GM\_WTD7\_1\_WT

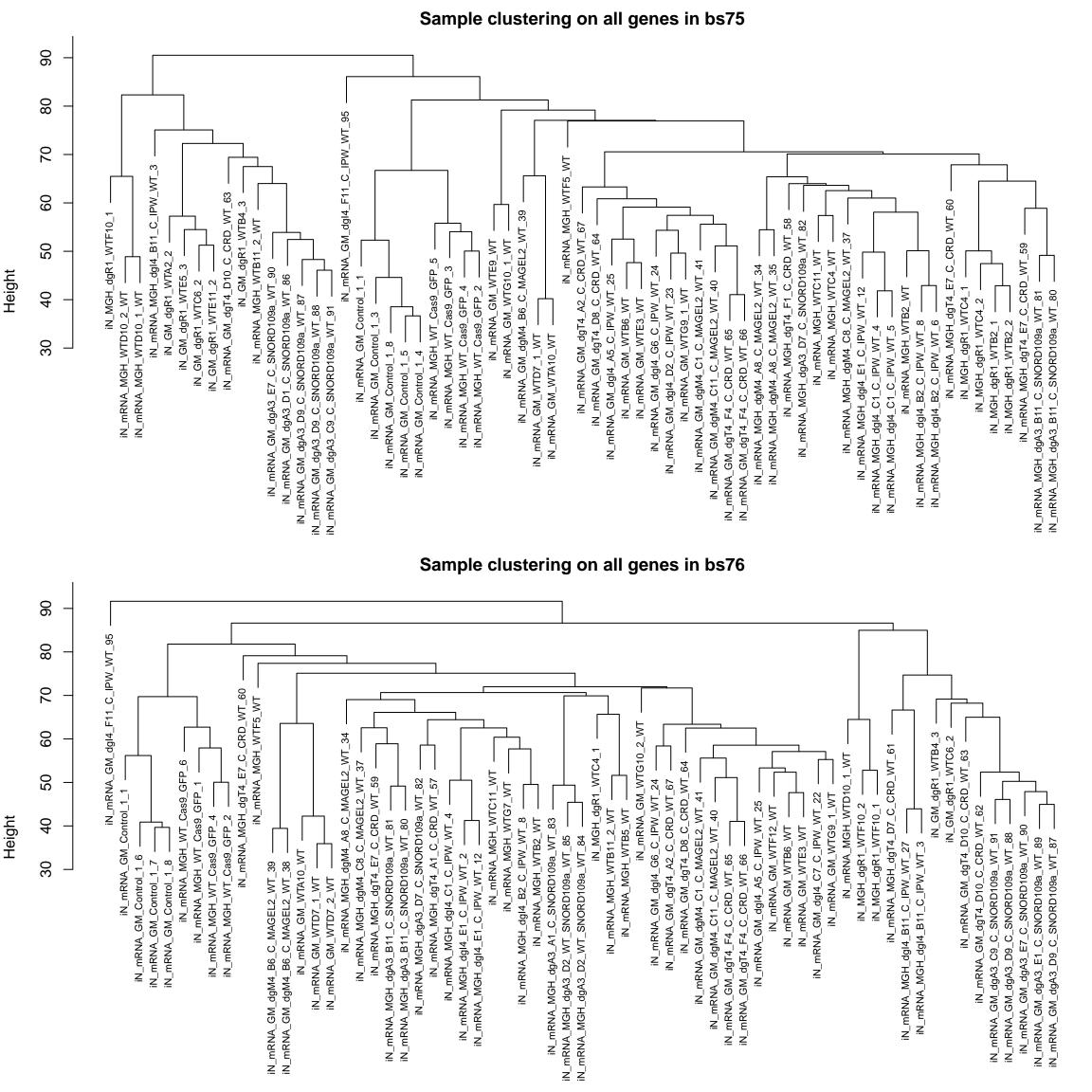




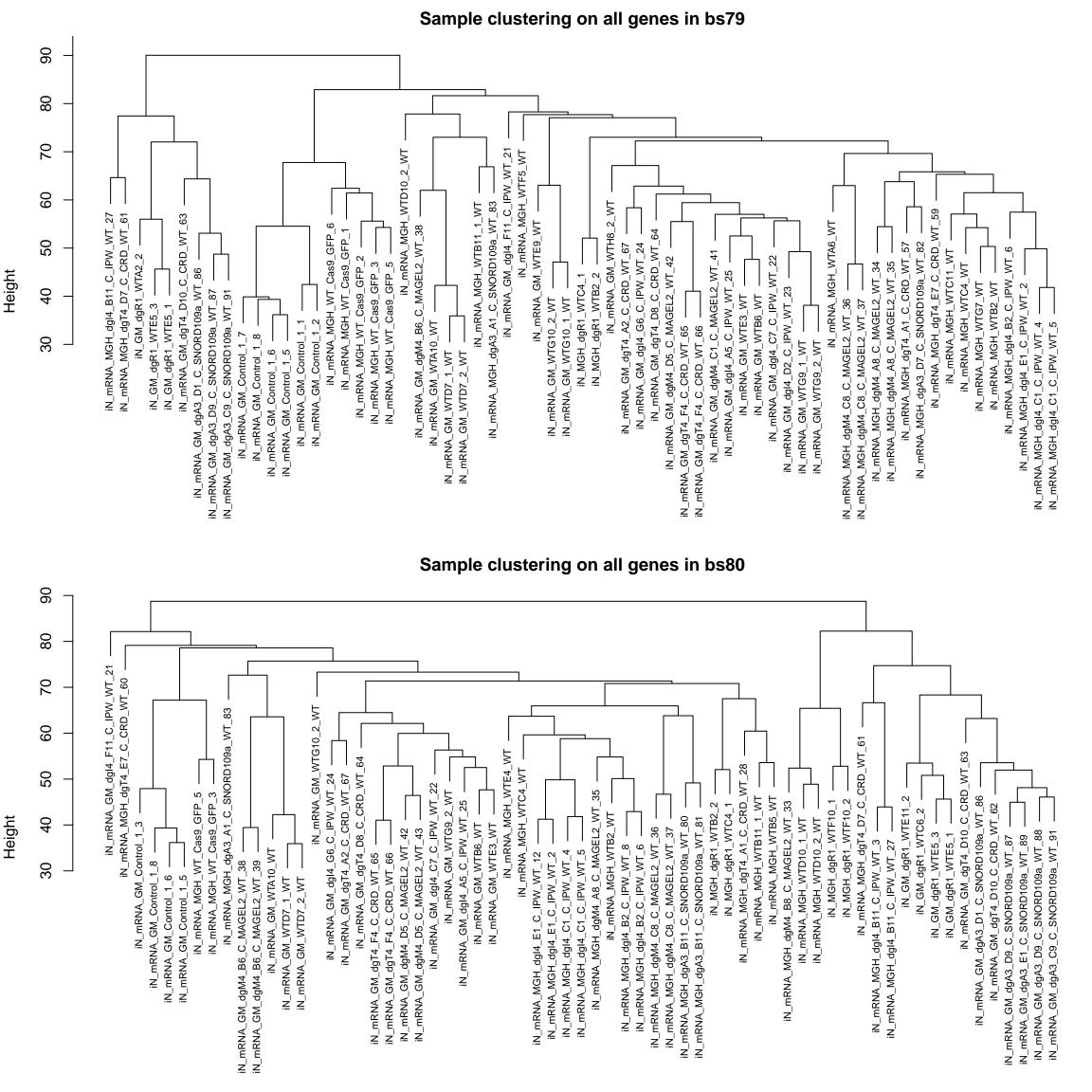


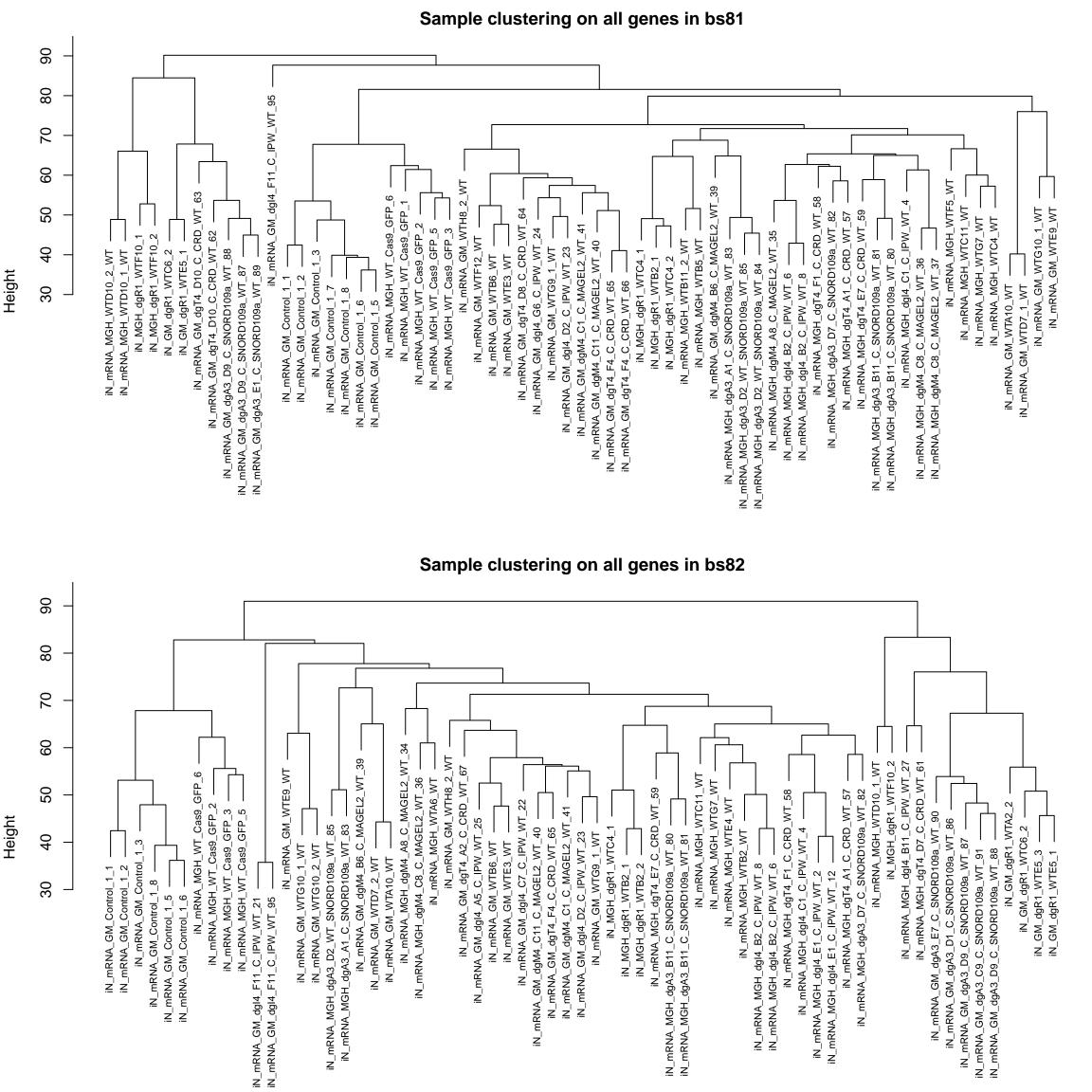




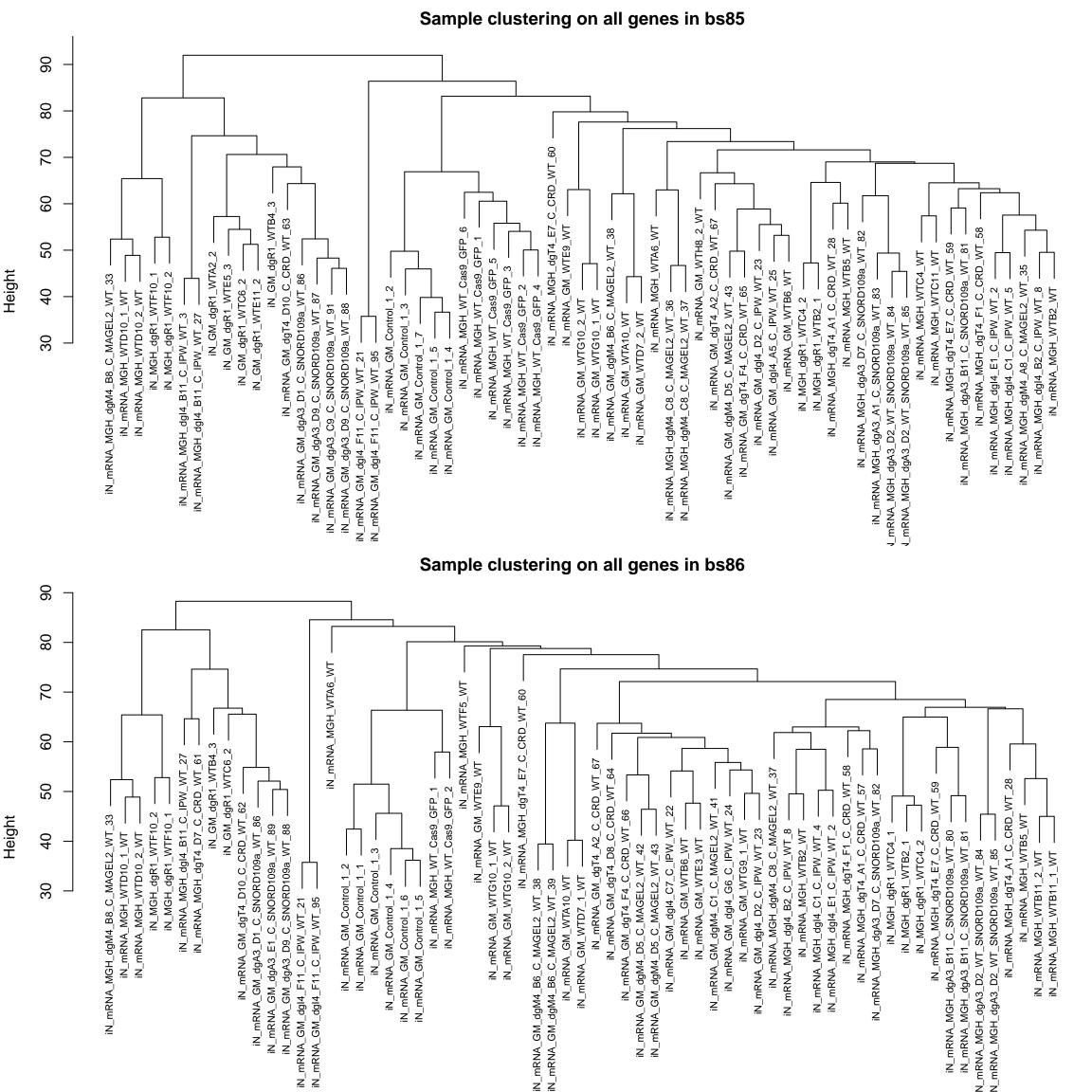


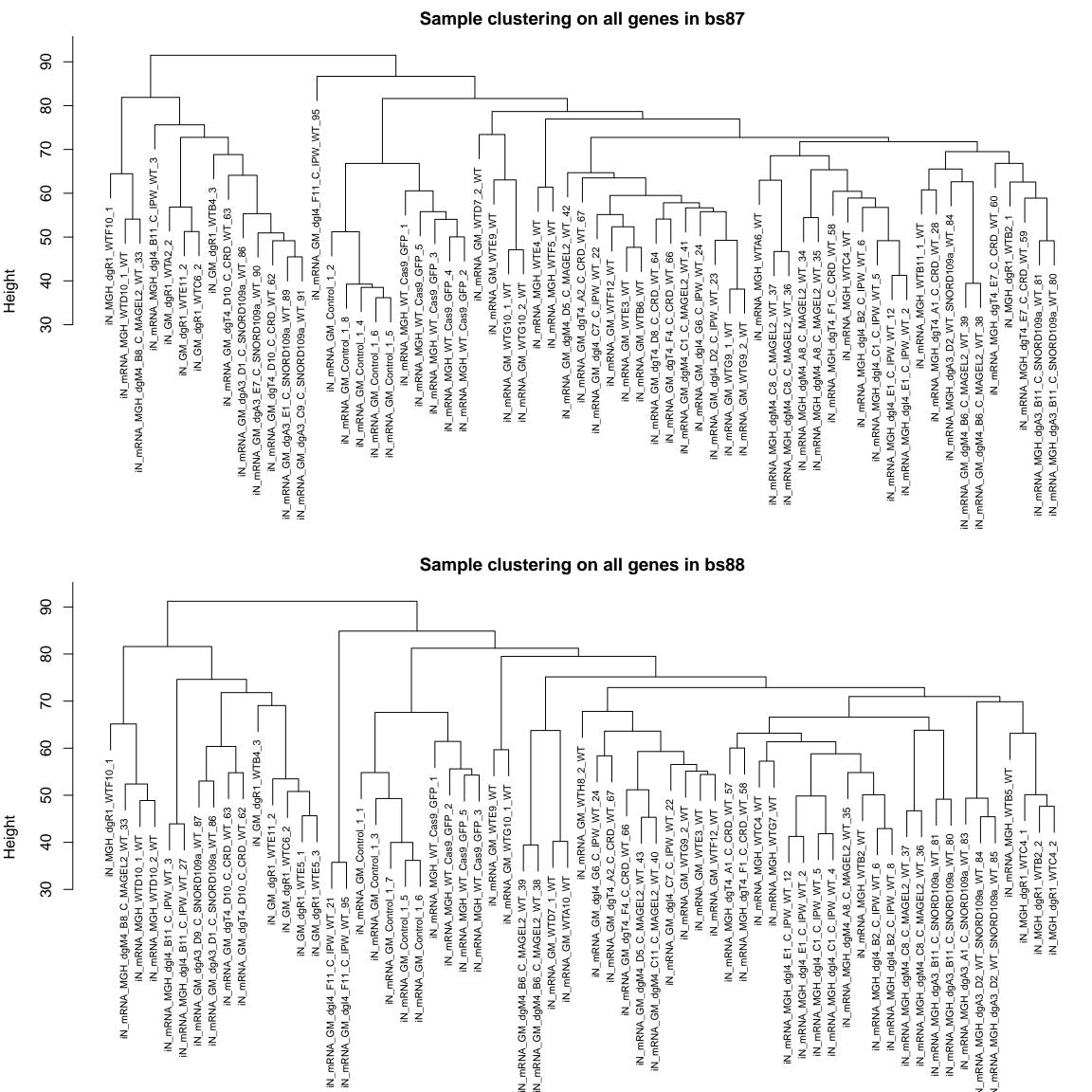
## Sample clustering on all genes in bs77 90 80 20 IN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_60 9 iN\_mRNA\_MGH\_dgT4\_D7\_C\_CRD\_WT\_61 iN\_mRNA\_MGH\_dgl4\_B11\_C\_IPW\_WT\_3 IN MRNA GM WTH8 2 WT iN\_GM\_dgR1\_WTB4\_3 iN\_MGH\_dgR1\_WTF10\_1 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_6 iN\_mRNA\_GM\_dgT4\_D8\_C\_CRD\_WT\_64 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_38 IN\_MGH\_dgR1\_WTB2\_1 iN\_mRNA\_MGH\_dgT4\_F1\_C\_CRD\_WT\_58 IN\_mRNA\_GM\_WTD7\_1\_WT IN\_mRNA\_MGH\_WTE4\_WT iN\_mRNA\_GM\_WTG10\_1\_WT IN MRNA GM WTE9 WT iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_59 iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_28 50 IN\_mRNA\_MGH\_dgA3\_D7\_C\_SNORD109a\_WT\_82 IN\_mRNA\_MGH\_WT\_Cas9\_GFP\_4 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_1 iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_57 IN\_mRNA\_MGH\_WTC4\_WT iN\_mRNA\_MGH\_WTC11\_WT iN\_mRNA\_GM\_dgl4\_C7\_C\_IPW\_WT\_22 iN\_mRNA\_GM\_dgA3\_D1\_C\_SNORD109a\_WT\_86 IN\_mRNA\_GM\_WTG9\_2\_WT iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_35 iN\_mRNA\_GM\_dgl4\_A5\_C\_IPW\_WT\_25 Height IN\_mRNA\_GM\_WTF12\_WT IN\_mRNA\_MGH\_WTB11\_2\_WT IN\_mRNA\_MGH\_WTB5\_WT iN\_mRNA\_MGH\_dgM4\_B8\_C\_MAGEL2\_WT\_33 iN\_mRNA\_MGH\_WTD10\_2\_WT iN\_GM\_dgR1\_WTC6\_2 iN\_mRNA\_MGH\_dgl4\_E1\_C\_IPW\_WT\_12 iN\_mRNA\_GM\_dgA3\_E7\_C\_SNORD109a\_WT\_90 iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_42 iN\_mRNA\_MGH\_dgA3\_A1\_C\_SNORD109a\_WT\_83 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_81 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_80 4 IN\_mRNA\_GM\_WTB6\_WT IN\_mRNA\_GM\_WTE3\_WT iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_37 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_36 N\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_85 N\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_84 iN\_GM\_dgR1\_WTE5\_1 iN\_GM\_dgR1\_WTE5\_3 iN\_mRNA\_GM\_dgA3\_C9\_C\_SNORD109a\_WT\_91 iN\_mRNA\_GM\_dgA3\_E1\_C\_SNORD109a\_WT\_89 iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_43 N\_mRNA\_GM\_dgM4\_C11\_C\_MAGEL2\_WT\_40 iN\_mRNA\_MGH\_dgI4\_B2\_C\_IPW\_WT\_8 iN\_mRNA\_MGH\_dgI4\_B2\_C\_IPW\_WT\_6 iN\_mRNA\_GM\_Control\_1\_2 iN\_mRNA\_MGH\_dgI4\_C1\_C\_IPW\_WT\_5 IN\_mRNA\_MGH\_dgI4\_C1\_C\_IPW\_WT\_4 iN\_mRNA\_GM\_Control\_1\_1 IN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_66 IN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_65 iN\_mRNA\_GM\_Control\_1\_7 30 iN\_mRNA\_GM\_Control\_1\_6 iN\_mRNA\_GM\_Control\_1\_5 iN\_mRNA\_GM\_dgl4\_F11\_C\_IPW\_WT\_21 iN\_mRNA\_GM\_dgI4\_F11\_C\_IPW\_WT\_95 Sample clustering on all genes in bs78 8 8 iN\_mRNA\_GM\_dgI4\_F11\_C\_IPW\_WT\_21 2 iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_60 9 IN\_mRNA\_GM\_WTH8\_2\_WT iN\_GM\_dgR1\_WTB4\_3 iN\_MGH\_dgR1\_WTF10\_2 iN\_mRNA\_MGH\_dgT4\_D7\_C\_CRD\_WT\_61 iN\_mRNA\_MGH\_dgl4\_B11\_C\_IPW\_WT\_27 IN\_mRNA\_GM\_WTE9\_WT iN\_mRNA\_GM\_dgT4\_D8\_C\_CRD\_WT\_64 IN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_38 IN\_mRNA\_GM\_WTA10\_WT iN\_mRNA\_MGH\_dgA3\_D7\_C\_SNORD109a\_WT\_82 iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_28 50 iN\_mRNA\_MGH\_dgT4\_F1\_C\_CRD\_WT\_58 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_80 iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_59 IN\_mRNA\_GM\_dgT4\_A2\_C\_CRD\_WT\_67 iN\_mRNA\_GM\_dgI4\_G6\_C\_IPW\_WT\_24 IN\_mRNA\_MGH\_WTC4\_WT iN\_GM\_dgR1\_WTA2\_2 IN\_mRNA\_MGH\_WTE4\_WT iN\_mRNA\_GM\_dgl4\_C7\_C\_IPW\_WT\_22 iN\_mRNA\_GM\_WTG9\_1\_WT iN\_GM\_dgR1\_WTE5\_3 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_3 IN\_mRNA\_MGH\_WTB11\_1\_WT iN\_mRNA\_GM\_dgA3\_E7\_C\_SNORD109a\_WT\_90 IN\_mRNA\_MGH\_WTB5\_WT IN mRNA GM dal4 A5 C IPW WT 25 iN\_GM\_dgR1\_WTC6\_2 iN\_GM\_dgR1\_WTE11\_2 iN\_mRNA\_GM\_Control\_1\_1 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_4 IN\_mRNA\_MGH\_WTB2\_WT IN\_MGH\_dgR1\_WTC4\_1 6 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_2 iN\_mRNA\_MGH\_dgA3\_A1\_C\_SNORD109a\_WT\_83 IN\_mRNA\_MGH\_WTD10\_1\_WT IN\_mRNA\_MGH\_WTD10\_2\_WT iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_88 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_87 iN\_mRNA\_GM\_WTE3\_WT iN\_MGH\_dgR1\_WTC4\_2 IN\_mRNA\_GM\_WTB6\_WT iN\_mRNA\_GM\_WTG10\_1\_WT IN\_mRNA\_GM\_WTG10\_2\_WT iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_43 iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_42 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_36 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_37 iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_85 iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_84 Height iN\_mRNA\_GM\_Control\_1\_3 iN\_mRNA\_MGH\_dgI4\_B2\_C\_IPW\_WT\_6 iN\_mRNA\_MGH\_dgI4\_B2\_C\_IPW\_WT\_8 iN\_MGH\_dgR1\_WTB2\_2 IN\_MGH\_dgR1\_WTB2\_1 IN\_mRNA\_MGH\_dgl4\_C1\_C\_IPW\_WT\_4 iN\_mRNA\_MGH\_dgl4\_C1\_C\_IPW\_WT\_5 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_65 iN\_mRNA\_MGH\_dgI4\_E1\_C\_IPW\_WT\_12 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_66 iN\_mRNA\_MGH\_dgI4\_E1\_C\_IPW\_WT\_2 30 iN\_mRNA\_GM\_Control\_1\_5 iN\_mRNA\_GM\_Control\_1\_4

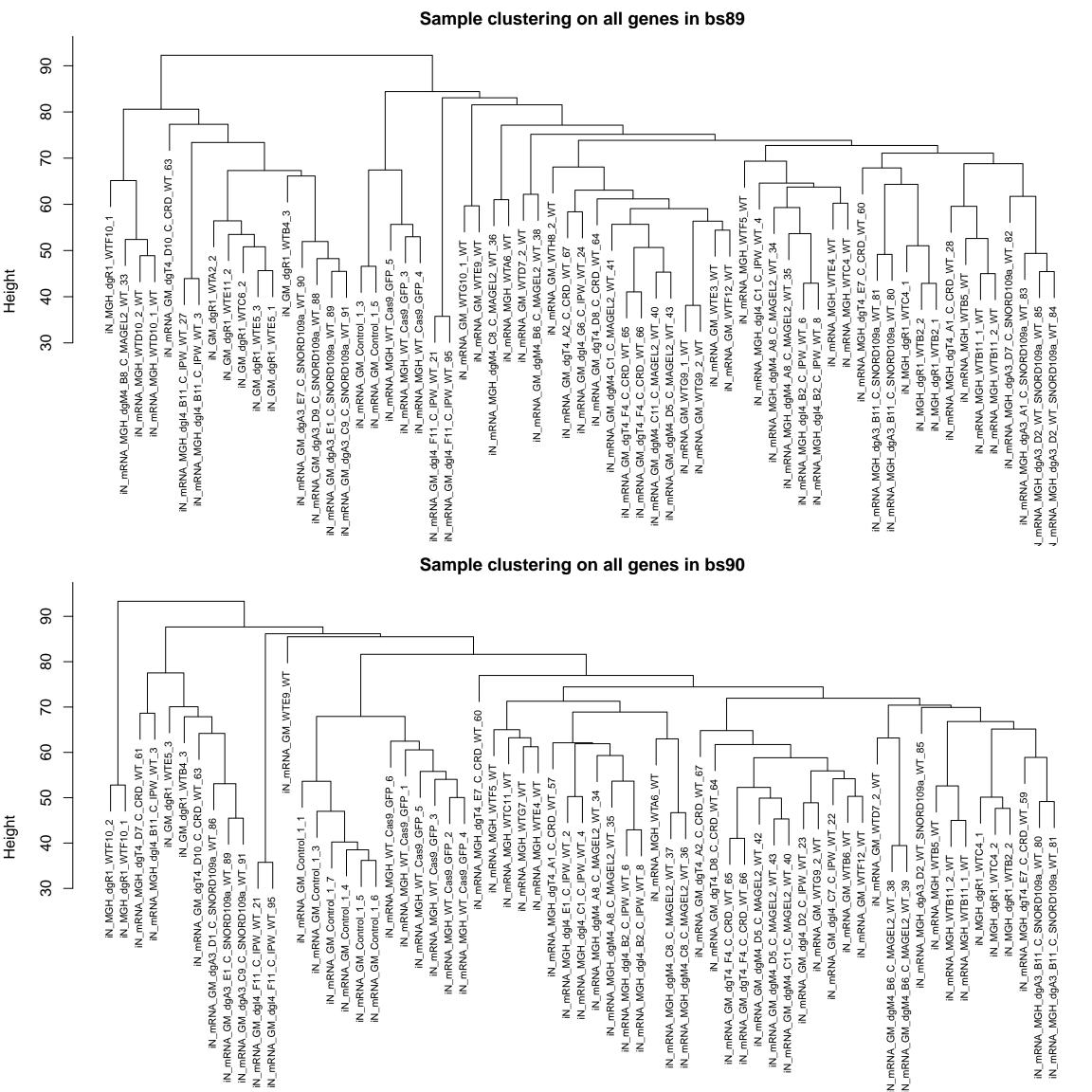




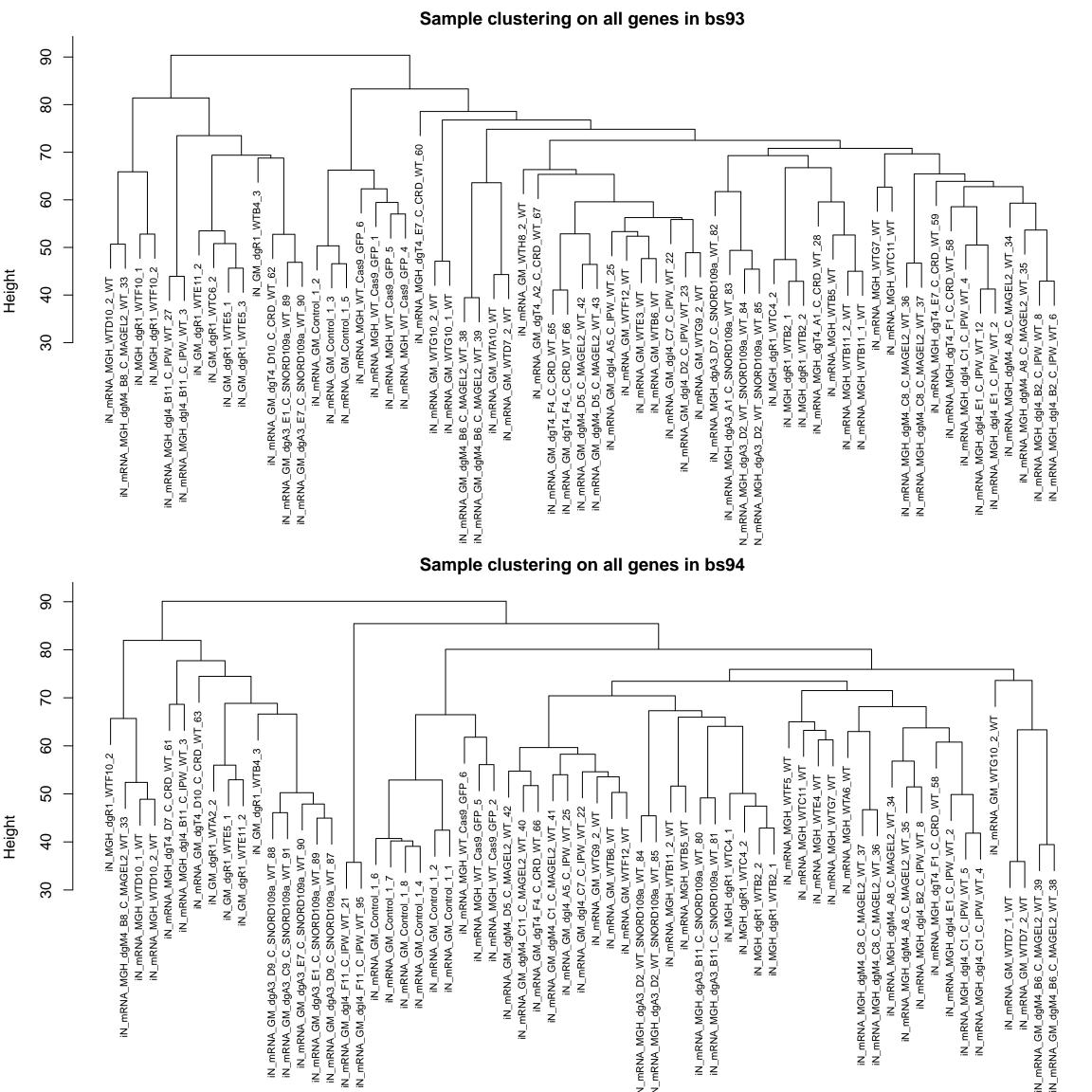
## Sample clustering on all genes in bs83 90 80 70 9 iN\_GM\_dgR1\_WTB4\_3 61 iN\_mRNA\_MGH\_dgT4\_F1\_C\_CRD\_WT\_58 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_63 IN\_mRNA\_MGH\_WTF5\_WT iN\_MGH\_dgR1\_WTF10\_2 IN\_mRNA\_GM\_WTA10\_WT iN\_mRNA\_MGH\_dgA3\_D7\_C\_SNORD109a\_WT\_82 iN\_mRNA\_MGH\_dgT4\_D7\_C\_CRD\_WT\_ iN\_mRNA\_GM\_WTE9\_WT IN\_mRNA\_MGH\_WTC11\_WT iN\_mRNA\_GM\_dgT4\_D8\_C\_CRD\_WT\_64 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_6 IN\_mRNA\_MGH\_WTG7\_WT IN\_mRNA\_MGH\_WTE4\_WT iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_28 50 iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_59 IN\_mRNA\_GM\_dgT4\_A2\_C\_CRD\_WT\_67 iN\_mRNA\_MGH\_dgl4\_B2\_C\_IPW\_WT\_6 iN\_mRNA\_GM\_dgI4\_G6\_C\_IPW\_WT\_24 IN\_mRNA\_GM\_WTG9\_1\_WT IN\_mRNA\_GM\_dgM4\_C1\_C\_MAGEL2\_WT\_41 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_5 iN\_GM\_dgR1\_WTA2\_2 iN\_GM\_dgR1\_WTE11\_2 iN\_mRNA\_GM\_WTE3\_WT iN\_mRNA\_GM\_dgA3\_D1\_C\_SNORD109a\_WT\_86 iN\_mRNA\_GM\_WTF12\_WT IN\_mRNA\_MGH\_WTD10\_1\_WT iN\_mRNA\_MGH\_dgM4\_B8\_C\_MAGEL2\_WT\_33 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_66 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_62 IN\_mRNA\_MGH\_WTB11\_2\_WT iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_85 iN\_mRNA\_MGH\_dgA3\_A1\_C\_SNORD109a\_WT\_83 IN\_mRNA\_MGH\_WTB5\_WT iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_4 Height iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_42 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_80 9 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_81 iN\_mRNA\_GM\_dgA3\_E7\_C\_SNORD109a\_WT\_90 IN mRNA GM Control 1 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_ iN\_mRNA\_GM\_WTG10\_2\_WT iN\_MGH\_dgR1\_WTB2\_1 iN\_MGH\_dgR1\_WTC4\_2 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_36 IN\_mRNA\_GM\_WTG10\_1\_WT iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_88 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_37 iN\_mRNA\_GM\_Control\_1\_3 IN\_mRNA\_GM\_dgA3\_C9\_C\_SNORD109a\_WT\_91 iN\_GM\_dgR1\_WTE5\_3 iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_43 IN\_mRNA\_GM\_dgM4\_C11\_C\_MAGEL2\_WT\_40 iN\_mRNA\_GM\_dgA3\_E1\_C\_SNORD109a\_WT\_89 iN\_GM\_dgR1\_WTE5\_1 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_87 iN\_mRNA\_MGH\_dgl4\_B11\_C\_IPW\_WT\_3 iN\_mRNA\_MGH\_dgl4\_B11\_C\_IPW\_WT\_27 iN\_mRNA\_GM\_Control\_1\_7 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_39 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_38 30 iN\_mRNA\_GM\_Control\_1\_8 IN\_mRNA\_GM\_Control\_1\_4 iN\_mRNA\_GM\_Control\_1\_5 Sample clustering on all genes in bs84 8 80 iN\_mRNA\_GM\_dgI4\_F11\_C\_IPW\_WT\_95 20 IN\_mRNA\_MGH\_WTF5\_WT iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_60 iN\_mRNA\_MGH\_dgl4\_B11\_C\_IPW\_WT\_27 9 IN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_34 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_63 IN\_mRNA\_GM\_WTH8\_2\_WT iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_39 IN\_mRNA\_MGH\_WTA6\_WT iN\_mRNA\_MGH\_dgT4\_F1\_C\_CRD\_WT\_58 IN\_mRNA\_MGH\_WTG7\_WT iN\_mRNA\_GM\_dgl4\_G6\_C\_IPW\_WT\_24 50 IN\_mRNA\_MGH\_WT\_Cas9\_GFP\_1 iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_59 iN\_mRNA\_MGH\_dgA3\_D7\_C\_SNORD109a\_WT\_82 iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_57 iN\_mRNA\_MGH\_WTB11\_2\_WT iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_28 IN\_mRNA\_MGH\_WT\_Cas9\_GFP\_4 IN\_mRNA\_MGH\_WT\_Cas9\_GFP\_5 IN\_mRNA\_MGH\_dgI4\_E1\_C\_IPW\_WT\_2 iN\_mRNA\_GM\_dgM4\_C1\_C\_MAGEL2\_WT\_41 iN\_GM\_dgR1\_WTA2\_2 iN\_mRNA\_GM\_dgA3\_D1\_C\_SNORD109a\_WT\_86 iN\_mRNA\_GM\_dgl4\_A5\_C\_IPW\_WT\_25 iN\_MGH\_dgR1\_WTF10\_1 iN\_MGH\_dgR1\_WTF10\_2 $IN\_GM\_dgR1\_WTE11\_2$ IN\_mRNA\_GM\_WTF12\_WT IN\_mRNA\_GM\_dgM4\_C11\_C\_MAGEL2\_WT\_40 IN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_85 iN\_mRNA\_MGH\_dgA3\_A1\_C\_SNORD109a\_WT\_83 IN\_mRNA\_MGH\_WTB2\_WT 4 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_81 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_80 IN MRNA MGH WTD10 2 WT IN\_mRNA\_MGH\_WTD10\_1\_WT iN\_GM\_dgR1\_WTC6\_2 IN\_GM\_dgR1\_WTE5\_1 iN\_mRNA\_GM\_dgA3\_E7\_C\_SNORD109a\_WT\_90 IN\_mRNA\_GM\_WTE3\_WT Height iN\_mRNA\_GM\_WTB6\_WT iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_36 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_37 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_88 iN\_mRNA\_GM\_dgA3\_C9\_C\_SNORD109a\_WT\_91 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_87 iN\_mRNA\_GM\_dgA3\_E1\_C\_SNORD109a\_WT\_89 IN\_mRNA\_MGH\_dgI4\_B2\_C\_IPW\_WT\_6 iN\_mRNA\_MGH\_dgI4\_B2\_C\_IPW\_WT\_8 iN\_MGH\_dgR1\_WTB2\_1 iN\_MGH\_dgR1\_WTB2\_2 iN\_mRNA\_GM\_Control\_1\_1 IN mRNA GM Control 1 2 IN\_mRNA\_GM\_WTA10\_WT iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_66 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_65 IN\_mRNA\_GM\_Control\_1\_7 30 iN\_mRNA\_GM\_Control\_1\_4 IN\_mRNA\_GM\_WTG9\_2\_WT iN\_mRNA\_GM\_WTG9\_1\_WT iN\_mRNA\_GM\_Control\_1\_5 iN\_mRNA\_GM\_Control\_1\_6 IN\_mRNA\_GM\_WTD7\_1\_WT IN\_mRNA\_GM\_WTD7\_2\_WT







## Sample clustering on all genes in bs91 8 80 20 IN\_mRNA\_MGH\_WTF5\_WT iN\_mRNA\_MGH\_dgT4\_D7\_C\_CRD\_WT\_61 iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_60 IN\_mRNA\_GM\_WTE9\_WT 9 iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_34 IN\_mRNA\_MGH\_WTD10\_2\_WT IN\_mRNA\_GM\_WTH8\_2\_WT iN\_GM\_dgR1\_WTB4\_3 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_39 IN\_mRNA\_GM\_dgT4\_A2\_C\_CRD\_WT\_67 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_6 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_3 iN\_mRNA\_GM\_dgT4\_D8\_C\_CRD\_WT\_64 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_36 IN\_mRNA\_MGH\_WTA6\_WT iN\_mRNA\_MGH\_dgA3\_D7\_C\_SNORD109a\_WT\_82 IN\_mRNA\_MGH\_WTC11\_WT iN\_mRNA\_MGH\_dgT4\_F1\_C\_CRD\_WT\_58 50 iN\_mRNA\_MGH\_dgI4\_B2\_C\_IPW\_WT\_6 iN\_mRNA\_MGH\_WTC4\_WT IN\_mRNA\_MGH\_WTG7\_WT iN\_mRNA\_GM\_dgM4\_C1\_C\_MAGEL2\_WT\_41 iN\_mRNA\_GM\_dgI4\_C7\_C\_IPW\_WT\_22 IN GM dgR1 WTE11 2 iN\_MGH\_dgR1\_WTF10\_2 Height iN\_MGH\_dgR1\_WTF10\_1 IN\_mRNA\_MGH\_WTB5\_WT iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_62 iN\_mRNA\_GM\_dgl4\_A5\_C\_IPW\_WT\_25 IN\_mRNA\_GM\_WTE3\_WT iN\_mRNA\_GM\_dgA3\_D1\_C\_SNORD109a\_WT\_ iN\_mRNA\_MGH\_dgI4\_C1\_C\_IPW\_WT\_4 iN\_mRNA\_GM\_Control\_1\_2 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_80 4 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_81 iN\_mRNA\_GM\_dgA3\_E7\_C\_SNORD109a\_WT\_90 iN\_mRNA\_GM\_Control\_1\_3 iN\_mRNA\_GM\_dgA3\_C9\_C\_SNORD109a\_WT\_91 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_88 iN\_GM\_dgR1\_WTE5\_1 iN\_GM\_dgR1\_WTE5\_3 N\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_84 N\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_85 N\_mRNA\_GM\_dgM4\_C11\_C\_MAGEL2\_WT\_40 iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_43 iN\_mRNA\_GM\_dgA3\_E1\_C\_SNORD109a\_WT\_89 IN\_mRNA\_MGH\_WTB11\_2\_WT iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_87 IN\_mRNA\_MGH\_WTB11\_1\_WT iN\_MGH\_dgR1\_WTB2\_2 iN\_mRNA\_MGH\_dgl4\_E1\_C\_IPW\_WT\_12 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_65 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_66 iN\_mRNA\_MGH\_dgl4\_E1\_C\_IPW\_WT\_2 IN\_mRNA\_GM\_WTA10\_WT iN\_mRNA\_GM\_Control\_1\_7 IN\_mRNA\_GM\_WTD7\_1\_WT 30 iN\_mRNA\_GM\_Control\_1\_4 iN\_mRNA\_GM\_WTG9\_1\_WT IN\_mRNA\_GM\_WTG9\_2\_WT iN\_mRNA\_GM\_Control\_1\_6 iN\_mRNA\_GM\_dgl4\_F11\_C\_IPW\_WT\_21 iN\_mRNA\_GM\_Control\_1\_5 iN\_mRNA\_GM\_dgI4\_F11\_C\_IPW\_WT\_95 Sample clustering on all genes in bs92 8 80 20 IN\_mRNA\_MGH\_WTF5\_WT 9 iN\_MGH\_dgR1\_WTF10\_2 IN\_mRNA\_MGH\_WTD10\_2\_WT iN\_GM\_dgR1\_WTB4\_3 IN\_mRNA\_GM\_WTH8\_2\_WT iN\_mRNA\_MGH\_dgT4\_D7\_C\_CRD\_WT\_61 IN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_63 iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_34 IN\_mRNA\_GM\_dgT4\_A2\_C\_CRD\_WT\_67 iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_57 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_1 IN\_mRNA\_GM\_WTE9\_WT iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_28 iN\_mRNA\_GM\_dgT4\_D8\_C\_CRD\_WT\_64 iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_59 50 iN\_GM\_dgR1\_WTA2\_2 iN\_GM\_dgR1\_WTE5\_3 iN\_GM\_dgR1\_WTE11\_2 iN\_mRNA\_GM\_dgI4\_G6\_C\_IPW\_WT\_24 iN\_mRNA\_MGH\_WTC4\_WT iN\_mRNA\_GM\_dgM4\_C1\_C\_MAGEL2\_WT\_41 iN\_mRNA\_GM\_dgA3\_D1\_C\_SNORD109a\_WT\_86 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_3 IN\_mRNA\_GM\_WTF12\_WT IN\_mRNA\_GM\_WTE3\_WT iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_5 IN\_mRNA\_MGH\_WTB5\_WT iN\_mRNA\_GM\_dgM4\_C11\_C\_MAGEL2\_WT\_40 iN\_mRNA\_GM\_dgA3\_E7\_C\_SNORD109a\_WT\_90 Height iN\_mRNA\_MGH\_dgI4\_B2\_C\_IPW\_WT\_8 iN\_mRNA\_MGH\_WTB2\_WT iN\_mRNA\_MGH\_dgA3\_A1\_C\_SNORD109a\_WT\_83 iN\_mRNA\_GM\_dgl4\_D2\_C\_IPW\_WT\_23 iN\_mRNA\_GM\_Control\_1\_3 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_81 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_80 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_62 4 iN\_MGH\_dgR1\_WTC4\_2 iN\_MGH\_dgR1\_WTB2\_2 IN\_mRNA\_GM\_WTG10\_2\_WT IN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_37 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_36 iN\_mRNA\_GM\_WTG10\_1\_WT iN\_mRNA\_GM\_dgA3\_E1\_C\_SNORD109a\_WT\_89 iN\_mRNA\_GM\_dgA3\_C9\_C\_SNORD109a\_WT\_91 iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_85 iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_84 IN\_mRNA\_MGH\_WTB11\_1\_WT IN\_mRNA\_MGH\_WTB11\_2\_WT iN\_mRNA\_MGH\_dgl4\_B11\_C\_IPW\_WT\_3 iN\_mRNA\_MGH\_dgl4\_B11\_C\_IPW\_WT\_27 iN\_mRNA\_GM\_Control\_1\_1 iN\_mRNA\_GM\_Control\_1\_2 iN\_mRNA\_MGH\_dgl4\_C1\_C\_IPW\_WT\_5 iN\_mRNA\_MGH\_dgl4\_C1\_C\_IPW\_WT\_4 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_65 iN\_mRNA\_MGH\_dgI4\_E1\_C\_IPW\_WT\_2 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_66 iN\_mRNA\_MGH\_dgI4\_E1\_C\_IPW\_WT\_12 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_39 IN\_mRNA\_GM\_WTA10\_WT IN\_mRNA\_GM\_WTD7\_1\_WT iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_38 30 iN\_mRNA\_GM\_WTG9\_2\_WT IN\_mRNA\_GM\_WTG9\_1\_WT



## Sample clustering on all genes in bs95 8 80 2 iN\_mRNA\_GM\_WTG10\_2\_WT 9 $iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_34$ IN\_mRNA\_GM\_WTH8\_2\_WT IN\_mRNA\_GM\_dgT4\_A2\_C\_CRD\_WT\_67 IN\_mRNA\_MGH\_dgT4\_D7\_C\_CRD\_WT\_61 iN\_mRNA\_MGH\_dgI4\_B11\_C\_IPW\_WT\_27 iN\_mRNA\_GM\_dgT4\_D8\_C\_CRD\_WT\_64 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_38 iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_36 IN\_mRNA\_MGH\_WTA6\_WT Cas9\_GFP\_1 iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_28 iN\_mRNA\_MGH\_dgT4\_F1\_C\_CRD\_WT\_58 IN\_mRNA\_MGH\_WTB5\_WT 50 IN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_57 IN\_mRNA\_MGH\_dgA3\_D7\_C\_SNORD109a\_WT\_82 IN\_mRNA\_MGH\_WTC11\_WT iN\_GM\_dgR1\_WTA2\_2 iN\_mRNA\_GM\_dgI4\_C7\_C\_IPW\_WT\_22 iN\_mRNA\_GM\_dgM4\_C1\_C\_MAGEL2\_WT\_41 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_3 IN\_mRNA\_MGH\_WTC4\_WT iN\_MGH\_dgR1\_WTF10\_2 iN\_GM\_dgR1\_WTE11\_2 Height IN\_GM\_dgR1\_WTE5\_1 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_62 IN\_mRNA\_GM\_WTF12\_WT iN\_MGH\_dgR1\_WTF10\_1 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_4 iN\_mRNA\_MGH\_dgI4\_E1\_C\_IPW\_WT\_2 IN\_mRNA\_MGH\_WTG7\_WT iN\_mRNA\_MGH\_dgI4\_C1\_C\_IPW\_WT\_4 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_2 iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_42 IN\_mRNA\_MGH\_WTB2\_WT iN\_MGH\_dgR1\_WTC4\_1 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_80 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_81 iN\_mRNA\_GM\_dgl4\_D2\_C\_IPW\_WT\_23 4 IN\_mRNA\_GM\_WTG9\_2\_WT iN\_mRNA\_GM\_dgA3\_E7\_C\_SNORD109a\_WT\_90 IN\_MGH\_dgR1\_WTC4\_2 iN\_MGH\_dgR1\_WTB2\_2 iN\_mRNA\_MGH\_dgA3\_D2\_WT\_SNORD109a\_WT\_84 iN\_mRNA\_MGH\_dgA3\_A1\_C\_SNORD109a\_WT\_83 iN\_mRNA\_GM\_WTB6\_WT IN\_mRNA\_GM\_WTE3\_WT IN\_mRNA\_MGH\_WT\_ IN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_88 iN\_mRNA\_GM\_dgA3\_C9\_C\_SNORD109a\_WT\_91 iN\_mRNA\_GM\_Control\_1\_3 iN\_mRNA\_GM\_dgM4\_C11\_C\_MAGEL2\_WT\_40 iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_43 iN\_mRNA\_GM\_dgA3\_E1\_C\_SNORD109a\_WT\_89 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_87 iN\_mRNA\_GM\_Control\_1\_2 iN\_mRNA\_GM\_Control\_1\_1 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_66 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_65 iN\_mRNA\_GM\_Control\_1\_7 iN\_mRNA\_GM\_Control\_1\_4 30 iN\_mRNA\_GM\_Control\_1\_8 IN\_mRNA\_GM\_WTD7\_1\_WT iN\_mRNA\_GM\_dgI4\_F11\_C\_IPW\_WT\_95 IN\_mRNA\_GM\_WTD7\_2\_WT iN\_mRNA\_GM\_dgI4\_F11\_C\_IPW\_WT\_21 Sample clustering on all genes in bs96 8 8 iN\_mRNA\_GM\_dgI4\_F11\_C\_IPW\_WT\_95 20 IN\_mRNA\_MGH\_WTF5\_WT iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_60 9 iN\_GM\_dgR1\_WTB4\_3 iN\_mRNA\_GM\_dgM4\_B6\_C\_MAGEL2\_WT\_39 IN\_MGH\_dgR1\_WTF10\_1 IN\_mRNA\_MGH\_WTD10\_1\_WT iN\_mRNA\_GM\_dgT4\_A2\_C\_CRD\_WT\_67 IN\_mRNA\_GM\_WTE9\_WT iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_6 50 iN\_mRNA\_MGH\_dgT4\_E7\_C\_CRD\_WT\_59 iN\_mRNA\_MGH\_dgT4\_A1\_C\_CRD\_WT\_28 IN\_mRNA\_MGH\_WTG7\_WT iN\_mRNA\_GM\_dgM4\_C1\_C\_MAGEL2\_WT\_41 iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_34 iN\_mRNA\_MGH\_WTC4\_WT IN MRNA MGH WT Cas9 GFP 5 iN\_mRNA\_GM\_dgl4\_C7\_C\_IPW\_WT\_22 iN\_GM\_dgR1\_WTA2\_ iN\_GM\_dgR1\_WTE5\_3 iN\_mRNA\_GM\_dgT4\_D10\_C\_CRD\_WT\_62 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_4 iN\_mRNA\_MGH\_WT\_Cas9\_GFP\_3 iN\_mRNA\_GM\_dgl4\_A5\_C\_IPW\_WT\_25 iN\_mRNA\_GM\_dgA3\_D1\_C\_SNORD109a\_WT\_86 IN\_mRNA\_GM\_WTF12\_WT iN\_mRNA\_MGH\_dgM4\_A8\_C\_MAGEL2\_WT\_35 iN\_mRNA\_MGH\_dgI4\_B2\_C\_IPW\_WT\_8 IN\_mRNA\_MGH\_WTB5\_WT IN\_GM\_dgR1\_WTE11\_2 IN\_mRNA\_MGH\_WTB11\_2\_WT iN\_GM\_dgR1\_WTC6\_2 iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_42 4 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_88 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_81 iN\_mRNA\_MGH\_dgA3\_B11\_C\_SNORD109a\_WT\_80 iN\_mRNA\_GM\_dgI4\_D2\_C\_IPW\_WT\_23 iN\_mRNA\_MGH\_dgI4\_C1\_C\_IPW\_WT\_5 iN\_mRNA\_MGH\_dgl4\_E1\_C\_IPW\_WT\_12 iN\_MGH\_dgR1\_WTC4\_1 iN\_MGH\_dgR1\_WTC4\_2 IN\_mRNA\_GM\_WTB6\_WT Height IN\_mRNA\_GM\_WTE3\_WT IN\_mRNA\_GM\_WTG10\_1\_WT iN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_36 IN\_mRNA\_MGH\_dgM4\_C8\_C\_MAGEL2\_WT\_37 IN\_mRNA\_GM\_WTG10\_2\_WT iN\_mRNA\_GM\_dgM4\_D5\_C\_MAGEL2\_WT\_43 iN\_mRNA\_GM\_dgM4\_C11\_C\_MAGEL2\_WT\_40 iN\_mRNA\_GM\_dgA3\_E1\_C\_SNORD109a\_WT\_89 iN\_mRNA\_GM\_dgA3\_D9\_C\_SNORD109a\_WT\_87 iN\_mRNA\_MGH\_dgl4\_B11\_C\_IPW\_WT\_3 iN\_mRNA\_MGH\_dgI4\_B11\_C\_IPW\_WT\_27 iN\_mRNA\_GM\_Control\_1\_2 iN\_mRNA\_GM\_Control\_1\_1 iN\_mRNA\_GM\_Control\_1\_6 iN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_66 iN\_mRNA\_GM\_Control\_1\_7 IN\_mRNA\_GM\_dgT4\_F4\_C\_CRD\_WT\_65 iN\_mRNA\_GM\_Control\_1\_3 iN\_mRNA\_GM\_Control\_1\_4 30 IN\_mRNA\_GM\_WTG9\_1\_WT iN\_mRNA\_GM\_WTG9\_2\_WT IN\_mRNA\_GM\_WTD7\_1\_WT IN\_mRNA\_GM\_WTD7\_2\_WT

