P-29 The Human DAZ Family Proteins Can be Functionally Distinguished

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Objectives: Micro-deletions at specific loci of the Y chromosome have been detected frequently among male infertility patients, proposing that the genes at the loci should be critical for male germ cell development. DAZ is one of the genes that are located at AZFc, one of the most frequently deleted loci. DAZ share structural homology with two other autosomal genes, DAZL and BOULE. In the previous work, we reported that Dazl, a mouse homolog of the human DAZ protein, functions as an adaptor for specific mRNAs to the dynein motor complex. In the present work, we asked if the human DAZ family proteins share functional characteristics of the mouse Dazl protein.

Methods: The GST pulldown and co-immunoprecipitation assays were carried out to determine specific interactions of the human DAZ proteins with dynein motor complex.

Results: Only DAZL among the human DAZ family proteins showed a specific interaction with dynein intermediate chain. DAZL also induced stress granules in cultured cells.

Conclusion: These results suggest that only DAZL, but not DAZ and BOULE, functions as an mRNA adaptor in male germ cells. This is the first report of differential functions of the DAZ family proteins.